

1/1. Examinable syllabus guide for
December 2025 to June 2026 according to ACCA

Share-based payment

- Understand the term 'share-based payment'.
- Discuss the key issue that measurement of the transaction should be based on fair value.
- Explain the difference between cash settled share-based payment transactions and equity settled share based payment transactions and transactions with cash alternatives.
- Identify the principles applied to measuring both cash and equity settled share-based payment transactions and transactions with cash alternatives.
- Compute the amounts that need to be recorded in the financial statements when an entity carries out a transaction where the payment is share based.

After studying our material and solving related questions, please refer back to the points above to make sure you fully cover it well.

1/2. Share-based payment

Share-based payment occurs *when* the entity settles amounts due on goods purchased *or* services received from suppliers *or* employees by issuing shares, share options *or* incur liabilities based on share price i.e. share appreciation rights (SAR⁵).

1/3. The problem

If the entity pays for goods or services received in cash; an expense is recognised in P/L while if the entity 'pays' for goods or services received by issuing shares or share options; there is no cash outflow. Thus; under traditional accounting, no expense would be recognised.

IFRS Accounting Standard # 2 'Share-based Payment' deals with this accounting anomaly by requiring all share-based payment transactions to be recognised as expense (or asset) in the entity's F/S^s when the transaction takes place.

1/4. Definitions

1. Share-based payment transaction is a transaction in which; an entity receives **goods or services** from third party (including employees) that settled in a share-based payment.

2. Share-based payment arrangement; is an agreement between an entity *and* a third party which entitles the third party to receive *either*:

A. Share *or* share option **of the entity**-**Equity-settled** share-based payment'; *or*

B. Cash *or* other assets based on the **entity's** equity instruments price (SAR)-**Cash-settled** share based payment'.

1/5. Categories of transactions within the scope
of IFRS Accounting Standard # 2

1. **Equity-settled** share-based transactions;
2. **Cash-settled** share-based transactions; *and*
3. Transactions with a **choice of settlement** in cash *or* equity instruments.

1/6. Scope of IFRS Accounting Standard # 2

1. IFRS Accounting Standard # 2 is applicable to all entities; small *and* large *regardless* of being private *or* public.
2. IFRS Accounting Standard # 2 applies *when*:
 - A. An entity receives **goods or services** in exchange for **its equity instruments or equity based payment** *including* transactions with the entity's **shareholders, parent or other group member** *unless* the transfer of equity based payment is clearly **not** payment for goods *or* services.
 - B. Issuance of equity instruments to an **acquiree's employees** in their capacity as employees;
 - C. Cancellation, replacement *or* modifications of existing share based payment arrangements following business Combination.

1/7. Scoped out of IFRS Accounting Standard # 2

The following are **scoped out** of IFRS Accounting Standard # 2:

- A. Transactions with employees in their capacity as shareholders.
- B. Equity instruments issued to achieve control in a business combination.

Illustrative example (1): The following is relevant Jungle Co.

- 1. A shareholder of Jungle transfers some of his shares to an employee of Jungle as part payment of a **private debt**.
- 2. Jungle granted share options to senior management of a Jungle's Sub.
- 3. Jungle issued shares to acquire raw material.
- 4. Jungle issued shares to a shareholder to facilitate a takeover.
- 5. Cancellation of a share option scheme of employees following a successful acquisition.

Required: Which of the above is under the scope of IFRS Accounting Standard # 2 for Jungle Co?

Answer:

Transactions (1) *and* (4) are **outside** the scope of IFRS Accounting Standard # 2 because the transfer is **not** payment for goods *or* services received by Jungle.

Transactions (2) *and* (3) *and* (5) are **within** the scope of IFRS Accounting Standard # 2.

Illustrative example (2): Which of the following transactions involving issuance of shares are **not** within the scope of IFRS Accounting Standard # 2?

- A. Employee share purchase plans.
- B. Employee share option plans.
- C. Share-based payment relating to acquisition of a Sub.
- D. Employee share appreciation rights (SAR^s).

Answer (C) is correct.

2/1. Recognition and measurement-General

1. Share-based payment arrangements related to goods or services received from **external suppliers** are recognised as assets *such as* inventory or PPE **or** expense *such as* operating expenses **when** the related goods or services are **received and** primarily measured at **F.V** of goods or services provided (**direct measurement**) **or** **F.V** of the share-based payment (indirect measurement) **only if** it is more clearer and reliable.

2. Share-based payment arrangements related to **employee services** is measured at **F.V** of the share options granted or SAR¹ (**indirect measurement** is more reliable) at the **grant date**.

Notes:

A. Recognition of employees share based payments as asset or expense might be **immediate or over vesting period** as appropriate.

B. Vesting date is the date *when* the **employee** is entitled to receive the **share** at the exercise price **or cash** based on share appreciation right (SAR).

C. Vesting period is the period *between* the **grant date** and the vesting date.

D. The credit entry to match the recognised asset or expense is *either*;

- **Equity** (share call option/shares) for **equity-settled share-based payment**; or

- **Liability** (SAR²) for **cash-settled share-based payment**.

Summary: Share based payment transactions are measured at **F.V** based on one of two possible approaches as follow:

1. Direct measurement	2. Indirect measurement
F.V of goods or services received <i>when</i> they received with no subsequent adjustments.	F.V of share option or SAR at the grant date <i>subject to</i> subsequent adjustments.
Must used <i>where possible</i> except for transactions with employees.	Must be used for transactions with employees.

Illustrative example: An entity issued shares on 1, Jan, 2018 that have \$1.20m par value *and* F.V of \$3.20m as a consideration for inventory purchased with a value of \$3m. The inventory is sold on 31, Dec, 2019 for \$5m.

Which of the following statements **correctly** describes the accounting treatment of this share-based payment transaction?

- A. Equity *and* inventory are increased by \$3m; the inventory value is expensed on the date of sale.
- B. Equity *and* inventory are increased by \$3.20m; the inventory value is expensed on the date of sale.
- C. Equity *and* inventory are increased by \$3m; the inventory value is expensed over two years to 31, Dec, 2019.
- D. Equity *and* inventory are increased by \$3.20m; the inventory value is expensed over two years to 31, Dec, 2019.

Answer (A) is correct: Direct measurement must be used *where possible except* for transactions with employees.

1, Jan, 2018

Dr: Inventory \$3m

Cr: Share capital \$1.20m → Par

Cr: Share premium \$1.80m → excess of par

31, Dec, 2019

Dr: Cost of sales \$3m

Cr: Inventory \$3m

And

Dr: Trade receivable *or* cash \$5m

Cr: Sales \$5m

3/1. Determining the Grant date (Measurement date)

Grant date is the date at which the entity *and* another party (including employees) agree to the terms *and* conditions of a share-based payment arrangement.

Illustrative example: On 15, May 2019 Travis agreed to issue share options to its employees. The agreement covers the period of service for 3 years.

Performance conditions: achieving minimum cumulative profits during the three years of \$2m.

The **number of options:** each employee is eligible for 1,000 share option.

However the exercise price will be determined *when* the compensation committee meets in Aug, 2019.

Required: Determine the grant date?

Answer: The **grant date** is *when* the **exercise price** is determined by the compensation committee *so* no measurement *until* that date.

Note: the **exercise price (strike price)** is the price at which the employee is entitled to acquire one share of the entity at the **vesting date** *regardless* of the **F.V** of the share at that time. For example *if* the **exercise price** is \$10 per share *and* the **F.V** of share at **vesting date** is \$14 *then*; exercising the **call option** benefits the employee. *But if* the **F.V** of the share (underlying) is less than \$10; the call option becomes **out of money** (i.e. does not worth exercising).

4/1. Recognition and measurement-Detailed

1. Transactions with non-employees are measured *and* recognised at F.V of the goods or services received *when* the control is transferred from the seller (or service provider) to the entity with no subsequent adjustments.
2. Share based payments granted to employees may be granted with *or without* vesting conditions attached as follows:

Grants without vesting conditions	Grants with vesting conditions
A presumption exists that; the corresponding services have been received by the entity. <i>Thus</i> ; employee's rights are immediately vested. i.e. a full recognition is warranted on the grant date as expense <i>and</i> increase in equity/ liability <i>as appropriate</i> at F.V.	Employee remuneration expense is recognised over the vesting period with corresponding increase in equity/liability <i>as appropriate</i> .

3. The categories of vesting conditions *and* measuring criteria are as follows:

Market vesting conditions		Non-market Performance vesting conditions
A. Market vesting conditions are; any grant condition related to market price of the entity's equity instrument. Example: a share option granted specifies that; it is exercisable after three years of the grant date if the F.V of the entity's share price is above \$50. B. Measurement over the vesting period is dependent on the type of share based payment as follow:		♦Performance conditions could be attached with the share based payment granted such as; achieving a specified cost saving, exceeding minimum specified profits, completion of a specified service period or satisfaction of a specified service conditions...etc. Rule: All non-market vesting conditions are considered over the vesting period for both equity-settled and cash-settled share based payments. Thus; failure to meet non-market vesting conditions prospectively adjusts previously recognised expense and the corresponding equity/liability in the period of change in non-market vesting conditions.
Equity-settled Share based payment	Cash-settled Share based payment	
♦The market conditions are taken into account in estimating F.V of the share option granted only on the grant date. ♦Subsequent changes in F.V of share option granted due to market conditions are ignored even if market conditions are not subsequently satisfied (i.e. the share option is out of money); the expense and the corresponding equity are recognised over the vesting period as long as the non-market vesting conditions are satisfied.	♦Since SAR^s represent a liability that is paid in cash, this liability is measured initially at F.V at the grant date and subsequently is re-measured to F.V at each reporting period (during and after the vesting period until exercised). ♦ Cash paid after the vesting period is measured at intrinsic value and the liability balance is measured at F.V with all differences immediately recognised in P/L (see later).	
Note: The same approach is used to account for vesting conditions when measuring both equity-settled and cash-settled share-based payments.		

Illustrative example: The following situations are related to *either*; **market vesting conditions** or **non-market vesting conditions** (performance conditions):

1. Successful launch of new product;
2. Price (F.V of share) to earnings ratio (i.e. P/E) must exceed the sector average in 3 years time;
3. Unbroken employee service *until* a planned initial public offer (IPO) in the future;
4. Unbroken service *until* the next year;
5. Growth in dividend per share of 6% compounded over the next 3 years;
6. Total shareholder return that exceeds the sector average for each of the next 3 years;
7. Conditions based on the future share price;
8. During the current year the BOD^s decided unconditionally that; the employees becoming entitled to exercise the previously issued options immediately;
9. The completion of a research project.

Required: Which type of **vesting condition** is in each of the above situations?

Answer:

1. **Non-market vesting condition.**
2. **Market vesting condition** because it is based on F.V of the entity's share.
3. **Non-market vesting condition.**
4. **Non-market vesting condition.**
5. **Non-market vesting condition** because dividends are controllable by the entity's BOD^s.
6. **Market vesting condition** because total shareholder return includes both dividends *and* change in the share F.V.
7. **Market vesting condition.**
8. **Non-market vesting condition.**
9. **Non-market vesting condition.**

Notes:

A. Usually the F.V of the underlying share at the **grant date** is **less** than its **exercise price**. *This means that share option or SAR granted is initially **out of money** at the grant date. However this does not mean that the share option or the SAR has zero market value although they initially have no intrinsic value but they have **time value** relating to expectations of the share price increase over the vesting period.*

B. An appropriate **valuation model** should be used to **measure** the F.V of the **shares options or SAR^s** granted *when* the market price is **not** available. Examples; Black-Scholes model, Binomial model *or* Monte Carlo model...

C. The **valuation model** used **must** consider the following factors:

- Option **exercise price**;
- Option **life**;
- **Current price** of the underlying shares;
- Expected share **price volatility**;
- **Risk free rate** (R_F) for the duration of the option's life; *and*
- **Dividends** expected on the underlying shares.

5/1. Accounting for Equity-settled

Share based payment

Illustrative example (1): Danty Co. granted 100 call options to each of its 500 employees with the following vesting conditions:

- 1. Market condition:** The share price must increase by 18% at the end of the vesting period.
- 2. Non market condition:** Employee must work for Danty for the next 3 years.

Estimates at grant date:

A. Option F.V is \$15.

B. There is 85% probability of achieving share price increase of 18% during the vesting period.

Estimates during the vesting period:

Description	Year-end		
	1	2	3
Employees expected to still in the scheme at the vesting date Non market condition	70%	75%	387 employees actually remain
Probability of achieving target increase in share price Market condition	75%	35%	?

Required: Explain the accounting treatment of the previous equity-settled share based payment.

Answer:

1. Market vesting conditions are only taken into account at initial measurement of the option's F.V on the grant date *without* any subsequent adjustment because the probability that the **market vesting conditions** will be achieved (85%) is taken into account *when* the F.V of the option is **initially** estimated *and* the option's F.V is **not** adjusted subsequently for this **market vesting condition** to prevent double effect. *Thus*; the F.V of the share option at the grant date would be \$12.75 (\$15 × 85 %*).

*The 85% probability that the share price realise an increase of 18% during the vesting period is taken into account in determining the option's F.V at the grant date *and* is **not** subsequently revised; the recognised expense *and* corresponding equity would still be recognised *even if* the entity fails to achieve the target increase in its share price by 18%.

2. Non market vesting condition related to employees remaining in the service for the next three years is revised during the vesting period as information becomes available.

Date	Expense	Equity
At the grant date	No recognition because no employee's services (related to the grant) are rendered yet. The expected total expense and increase in equity <i>if</i> all employees stay over the service period = 500 employee's × 100 options × \$12.75 = \$637,500. This amount is recognised over the next three years subject to adjustments for the non-market vesting condition only.	
First year-end	$\frac{500 \text{ Employee} \times 70\% \times 100 \text{ options} \times \$12.75}{3 \text{ Years}} = \$148,750$	\$148,750
Second year-end	$\frac{500 \text{ Employee} \times 75\% \times 100 \text{ options} \times \$12.75}{3 \text{ Years}} \times 2 - \$148,750 = \$170,000$	148,750 + 170,000 = \$318,750
Third year-end	$(387 \text{ Employee} \times 100 \text{ options} \times \$12.75) - \$318,750 = \$174,675$	318,750 + 174,675 = \$493,425

Description	Year-end		
	1	2	3
Dr: Operating expenses → P/L	\$148,750	\$170,000	\$174,675
Cr: Share option reserve → equity	\$148,750	\$170,000	\$174,675

Notes:

A. Although the **expected total expense** and increase in equity at the **grant date** was \$637,500 *but actually recognised cost* for the plan is \$493,425 *due to changes in the non-market vesting conditions only* (i.e. number of employees in this case).

B. Although the amounts annually charged to expenses are not equal (*due to the change in non-market vesting conditions*); *but the basic principle is that; the estimated cost of the options that are expected to vest is recognised in P/L on straight line basis over the vesting period remains valid.*

C. For **equity-settled** share based payment arrangement the credit is recognised in **equity**. IFRS **Accounting Standard** # 2 is silent as to which component of equity this should be, *but commonly it would be to an option reserve.*

D. IFRS **Accounting Standard** # 2 requires **disclosure** of information that enables F/S^s users to understand the **nature and extent** of share based payment arrangements that existed during the period. *Therefore the key terms and vesting conditions would need to be disclosed in the F/S^s.*

E. The F.V of the recognised share based payment is **adjusted for non-market vesting conditions** based on the information available at the date the F/S^s are **authorised for issue**. *Thus; changes in the non-market vesting conditions after the reporting period are adjusting events for both equity-settled and cash-settled share based payments.*

Continued: Assume the option **exercise price** that determined at the **grant date** was \$100 per share *when Danty's share was traded at \$90 and the F.V of the share at the vesting date (end of year three) is either:*

A. \$98 or B. \$105 or C. \$114

Assume the par value of Danty share is \$40.

Required: Determine the appropriate accounting treatment under each scenario.

Answer:

1. The share option at the vesting date from holder's perspective (employee) can be:

Out of money	In the money	At the money
The option doesn't worth exercising <i>When</i> the share's exercise price > F.V i.e. Intrinsic value = \$nil	The option worth exercising <i>When</i> the share's exercise price < F.V i.e. the option has an intrinsic value	Exercise price = F.V i.e. Intrinsic value = \$nil

Note: The intrinsic value of share option will vary based on the difference between the current F.V of the share price (underlying) and the strike price (exercise price). As the current F.V of the share price increases, as the share option's intrinsic value increases and vice versa.

2. In order for the remaining employees to exercise their share options; the pre-determined market vesting condition must be satisfied (i.e. the share price must increase by 18% at the end of the vesting period).

Thus; the F.V of the share at the end of year three must equal or exceed \$106.20 ($\$90 \times 118\%$) accordingly;

Under scenario (A); employees can't exercise their share options and in fact, the share option is out of money.

Under scenario (B); although the share option is in the money but employees can't exercise their share options because the market vesting condition has not been satisfied.

Under scenario (C); the market vesting condition is satisfied and the option is in the money. Thus; options would be exercised.

3. At the vesting date the accounting treatment would be as follows:

Under scenarios (A) and (B)	Under scenario (C)
Dr: Share option reserve → equity \$493,425 Cr: R.E ^s or other component of equity \$493,425 Note: no change in total equity after vesting date for forfeiture or the non-exercising the options.	Dr: Share option reserve → equity \$493,425 Dr: Cash (387 employees × 100 options × \$100) = \$3,870,000 Cr: Share capital (387 × 100 shares × \$40) = \$1,548,000 Cr: Share premium \$2,815,425 → Plug

Notes:

A. When the options are exercised, the balance on the share option reserve within equity is transferred to share capital. Any balance relating to options that lapsed is transferred to an equity account such as R.E.

For example assume from the above example under scenario (C) that; only 80% of the share options are exercised and the remainder were lapsed. Then the following entry is appropriate:

Dr: Share option reserve → equity \$493,425

Dr: Cash (387 employees × 100 options × 80% × \$100) = \$3,096,000

Cr: R.E^s or other component of equity ($\$493,425 \times 20\%$) = \$98,685

Cr: Share capital (387 × 100 shares × 80% × \$40) = \$1,238,400

Cr: Share premium [$\$3,096,000 + (\$493,425 \times 80\%) - \$1,238,400$] = \$2,252,340

B. The remuneration plan (scheme) usually determines the period allowed for the entitled employees to exercise their share options (for example one year from vesting date). *If* the entitled employees do not exercise during this allowable period; their right to exercise lapses

Summary:

Effects of share options related to future **vesting conditions** can be summarised as follows:

Description	When share options are granted	During vesting period	If options are lapsed unexercised or unvested	If options are exercised by issuance of shares
(1) Liquidity	No effect	No effect	No effect	Improved as the entity receives the exercise price for shares issued.
(2) Profitability	No effect	Decrease because remuneration expense decreases net profit.	No effect	No effect
(3) BEPS	No effect	Decreases because remuneration expense decreases BEPS numerator.	No effect because no further expenses would be recognised.	Decreases because the denominator of BEPS increases by the shares issued
(4) DEPS	No effect	Decreases because the denominator of DEPS would increase by the effect of potential ordinary shares.	No effect	No effect because the shares actually issued would decrease BEPS
(5) Total equity	No effect	Increases	No effect	Increases
(6) Gearing (D/E)	No effect	Decreases (improved) as equity increases.	No effect	Decreases (improved) as equity increases.

Notes:

1. Under equity-settled share-based payments;

A. Granting share options will not have an immediate effect on liquidity *and* cash outflow as no cash will be transferred *when* the options are issued (granted).

B. On vesting date; the liquidity is enhanced *if* options are exercised by issuing **new shares** *or* deteriorated *if* the entity **reacquired** the needed shares from the stock market as the entity would pay the **higher F.V** to acquire these shares *and* would receive the lower strike price.

C. On the other hand; under cash-settled share-based payments; the liquidity is **not affected** during the vesting period *and* would be deteriorated *when* SAR^s are settled.

2. Under equity-settled *and* cash-settled share based payment transactions; **profitability and EPS** are **negatively affected** during the vesting period because the debit is to an **operating expense** account under both types of schemes. IFRS Accounting Standard # 2 requires entities to recognise the cost of a share based payment transaction (equity-settled *and* cash-settled) in the same way *as if* the employees received salaries paid in cash.

3. **Issuance of share option** has a **dual impact** on DEPS because it **reduces profits** (numerator effect) *and* increases denominator of diluted earnings per share (DEPS).

Illustrative example (2): The financial controller of Kappa has recently received a memorandum from a member of the BOD⁴ including the following key issues:

1. The board is eager to reward employees appropriately *but* is aware that; large salary payments have an immediate impact on the liquidity *and* EPS of Kappa.
2. A more appropriate method of remuneration is to grant key employees **share options** that will vest at a future date *if* they comply with **specified conditions** (*such as* continued employment) *or* achieve specific **performance targets** (*such as* completing an assignment to a specified performance standard *or* achieving a specified growth in the share price). This would allow employees to exercise the options at an appropriate time for them *and* would prevent an immediate impact on the liquidity *or* EPS of Kappa at the grant date.

Required: Draft a reply that responds to the observations made by the board member. Your reply should focus on the impact on the SFP and P/L of Kappa *rather than* the personal tax positions of the employees. Your reply should contain a summary of the appropriate provisions of IFRS **Accounting Standard** # 2 'Share-based payment'.

Answer:

Model answer (1):

Salaries are paid in cash *and* would have an immediate effect on liquidity *and* cash flow they would also have an immediate effect on profitability. IAS # 19 'Employee benefits' states that; short term employee benefits *such as* salaries should be recognised as an expense *when* the employees have performed the services for which they are to be paid. It is impossible to defer the expense recognition.

The issue of **share options** to employees is an **equity-settled share-based payment** transaction is covered by IFRS **Accounting Standard** # 2 'Share based payment'. **Share options issuance** will **not** have an immediate effect on liquidity as no cash will be transferred *when* the options are issued *however* share based payment transactions negatively affect profitability *and therefore* EPS.

IFRS **Accounting Standard** # 2 requires an entity to recognise the cost of a share based payment transaction in the same way *as if* the employees received salaries paid in cash. *This means that* the cost of issuing **share options** is recognised as an **expense** in P/L. The cost is also recognised in a **separate reserve within equity** since no cash is transferred. *When* the share options vest *and are exercised* the additional **shares issued** will increase the denominator of the EPS *and* reduce EPS further.

When share options are issued to employees as a reward for their services; IFRS **Accounting Standard** # 2 requires the expense to be measured using the **F.V** of the equity instruments to be issued. This normally involves the use of an **option pricing model**. **F.V** is estimated at the option's **grant date** *and is not* revised subsequently.

Where the issuance of options depends on a **market vesting condition** (*such as* an increase in the share price), the probability that this **market vesting condition** will be achieved is taken into account *when* the **F.V** of the option is estimated initially and the option's **F.V** is **not** adjusted subsequently for this **market vesting condition**.

It is proposed to issue options which will vest at a future date after the employees have complied with specific **vesting condition**. The total cost of the options is recognised in P/L over the **vesting period**. The number of options expected to vest is estimated at the date the options are granted *and revised* as necessary over the **vesting period**.

When the options are exercised, the balance on the **separate reserve** within equity is transferred to share capital. Any balance relating to options that lapse is transferred to an equity account like R.E.

Model answer (2):

Salaries paid in cash would of course have an immediate impact on liquidity. It is true that payment of salaries to employees in cash would have an immediate impact on profitability *as well as* liquidity. The payment of a salary would be an **employee benefit** as defined in IAS # 19 'Employee benefits'. IAS # 19 gives such a payment as a specific example of a **short-term employee benefit** and states that; it should be recognised as an **expense** *when* the related services have been provided by the employee. *Therefore*, provided the salary payments are not made in advance (uncommon) there will normally be an immediate impact on profitability (*unless* the salary cost could be included in the carrying amount of another asset *such as* inventory *or* PPE).

Accounting for the proposed issue of **share options** to employees is governed by the provisions of IFRS **Accounting Standard** # 2 'Share based payment'. IFRS **Accounting Standard** # 2 deals with **share based payments** that are made in the form of cash (**cash-settled share based payments**) and those made by the issue of equity instruments of the entity (**equity-settled share based payments**). Equity-settled share based payments include the **granting of share options**. The basic principle is that, the cost of the share based payment should be treated in just the same way *as if* the payment were made in cash. *In other words* the cost will normally be recognised as an **expense** in P/L *although* it may occasionally be included in the carrying amount of another asset. *Therefore; although* such payments do **not** have the same immediate impact on liquidity as salary payments, they do affect EPS as they are charged to P/L. *If the share options vest and are exercised*; there is a **double impact on EPS** since the additional shares issued will increase the denominator of EPS calculation.

Where the payment is in the form of **equity instruments** two other issues arise.

The first is **how** the cost of the payment should be **measured** *where* the payment is made in return for employee services.

IFRS **Accounting Standard** # 2 requires that; it be **measured** using F.V of the **equity** instruments actually issued. In the case of **share options** (*unless* the options are listed) the **options F.V** should be estimated using an **option pricing model**. The F.V estimate is made at the **grant date** and is **not** revised subsequently.

The second issue is *when* the instruments **do not vest immediately** and the vesting is subject to future **vesting conditions**. The basic principle is that; the estimated cost of the options that are expected to vest is recognised in P/L on **straight line basis** over the **vesting period**. Changes in **market vesting conditions** do not affect the subsequent measurement of the expense as the likelihood (*or otherwise*) of the shares vesting is **initially** factored into the option's F.V at the **grant date**. *Therefore* **no** account is taken of changed perceptions in this area since this would *result in* double counting.

Changes in **non-market vesting conditions** revise the expense recognised over the vesting period.

Given that no cash is paid to the employees over the **vesting period**; the credit entry that corresponds to the debit to P/L (*or* to assets) is directly to **equity** as a **separate reserve**. The balance in that reserve is transferred to share capital *or* R.E^s as an equity transfer *when* the options are exercised *or* lapse respectively.

Illustrative example (3): On 1, Jan, 2017 Blueberry granted share options to each of its 200 employees subject to a three-year vesting period provided that the volume of sales increases by a minimum of 5% per annum *throughout* the vesting period. A maximum of 300 share options per employee will vest *dependent upon* the increase in the volume of sales *throughout* each year of the vesting period as follows:

- If the volume of sales increases by an average between 5% and 10% per year; each eligible employee will receive 100 share options.
- If the volume of sales increases by an average between 10% and 15% per year; each eligible employee will receive 200 share options.
- If the volume of sales increases by an average of over 15% per year; each eligible employee will receive 300 share options.

At the **grant date**; Blueberry estimated the F.V of each option was \$10 and that the increase in the volume of sales each year would be between 10% and 15%. It was also estimated that; a total of 22% of employees would leave prior to the end of the vesting period.

At each reporting date within the vesting period the situation was as follows:

Date	# of employees left during the year	Further leaves expected	Annual increase in sales	Expected sales increase over remaining vesting period	Average annual increase in sales to date
31, Dec, 2017	8	18	14%	14%	14%
31 Dec, 2018	6	4	18%	16%	16%
31, Dec, 2019	2		16%		16%

Required: Calculate the impact of the above share based payment scheme on Blueberry's F/S⁵ in each reporting period.

Answer:

Date	Equity calculation	Equity balance	Expense (change in equity balance)	Note
31, Dec, 2017	$[(200 - 8 - 18) \times 200 \text{ options} \times \$10 \times 1/3]$	\$116,000	\$116,000	1
31, Dec, 2018	$[(200 - 8 - 6 - 4) \times 300 \text{ options} \times \$10 \times 2/3]$	364,000	248,000	2
31, Dec, 2019	$[(200 - 8 - 6 - 2) \times 300 \text{ options} \times \$10]$	552,000	188,000	3

Notes:

1. At 31, Dec, 2017; a total of 26 employees (8 + 18) are expected to leave by the vesting date meaning that 174 are expected to remain. Blueberry estimates that average annual growth in sales volume will be 14% consequently it is estimated that eligible employees would each receive 200 share options at the vesting date.
2. At 31, Dec, 2018; a total of 18 employees (8 + 6 + 4) are expected to leave by the vesting date meaning that 182 are expected to remain. Blueberry estimates that the average growth in sales volume will be 16% consequently it is estimated that eligible employees will each receive 300 share options at the vesting date.
3. At 31, Dec, 2019; it is known that total of 16 employees have left at some point during the vesting period (8 + 6 + 2) leaving 184 eligible employees. As average annual growth in sales volume over the vesting period was 16% eligible employees are entitled to 300 share options each.

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6/1. Re-pricing the share option

♦When the F.V of the share option decreases *due to* market factors *or* otherwise, the employee's benefits from the scheme decreases because the decrease in the F.V of the share option decreases *or* slashes the difference between the F.V of the underlying share *and* the exercise price. *Thus*; employee's benefits from the exercising of the share option are lost.

♦The management may decide to compensate the employees for the decline in F.V of the share option through **re-pricing** the share option by decreasing the share exercise price.

♦If the share option is **re-priced** during the vesting period; the share exercise price decreases *consequently*, an **additional** cost of the scheme arises.

♦The **additional** cost *and* the corresponding increase in equity are proportionately allocated **prospectively** to the remaining time from the **date of re-pricing** (not from the start of the year in which the re-pricing occurs) to the vesting date.

Illustrative example: On 1, April, 2017 Delta **granted** 2,000 employees 1,000 share options *each*. The options are due to vest on 31, March, 2020 **provided** the relevant employees remain over the three-year period-ending on 31, March, 2020. On 1, April, 2017 Delta estimated that 1,800 employees would qualify for the options on 31, March, 2020. This estimate was amended to 1,850 employees on 31, March, 2018 *and* further amended to 1,840 employees on 31, March, 2019.

On 1, April, 2017 the F.V of an option was \$1.20. The F.V increased to \$1.30 by 31, March, 2018 *but due to* challenging trading conditions; the F.V declined after 31, March, 2018. On 30, Sep, 2018 *when* the F.V of an option was 90 cents the directors **re-priced** the options *and* this caused the F.V to increase to \$1.05. Trading conditions improved in the second half of the year *and* by 31, March, 2019 the F.V of an option was \$1.25. On 31, March, 2020 only 1,830 employees remain in service.

Required: Explain and show by quantifying amounts how this plan is accounted for from its announcement to the vesting date.

Answer:

Date	Calculation	Equity balance	Expense (change in equity balance)
At grant date 1, April, 2017	No recognition, as no employee's service (related to the grant) is rendered yet. The expected total expense and increase in equity if the estimated number of employees stay over the service period = 1800 employee's × 1,000 options × \$1.20 = \$2.16m. This amount is recognised over the next three years unless a non-market vesting condition adjusts it.	0	0
31, March, 2018	Original arrangement = $\frac{1,850 \text{ Employee} \times 1,000 \text{ options} \times \$1.20}{3 \text{ Years}} = \$740,000$	\$740,000	\$740,000
31, March, 2018	Total year one	\$740,000	\$740,000
31, March, 2019	Original arrangement = $\frac{1,840 \text{ Employee} \times 1,000 \text{ options} \times \$1.20}{3 \text{ Years}} \times 2 \text{ Years} = \$1,472,000$	\$1,472,000	\$732,000
31, March, 2019	Any additional costs that have occurred as a result of the re-pricing of the options on 30, Sep, 2018 should be spread over the remaining vesting period from 30, Sep, 2018 to 31, March, 2020. Re-pricing = $\frac{1,840 \text{ Employee} \times 1,000 \text{ options} \times (\$1.05 - \$0.90)}{18 \text{ Months}} \times 6 \text{ Months} = \$92,000$	\$92,000	\$92,000
31, March, 2019	Total year two	\$1,564,000	\$824,000
31, March, 2020	Original arrangement = $(1,830 \text{ Employee} \times 1,000 \text{ options} \times \$1.20) = \$2,196,000$	\$2,196,000	\$724,000
31, March, 2020	Re-pricing = $[(1,830 \text{ Employee} \times 1,000 \text{ options}) \times (\$1.05 - \$0.90)] = \$274,500$	\$274,500	\$182,500
31, March, 2020	Total year three	\$2,470,500	\$906,500

Year-end	31, March, 2018	31, March, 2019	31, March, 2020
Dr: Operating expenses → P/L	\$740,000	\$824,000	\$906,500
Cr: Share option reserve → equity	\$740,000	\$824,000	\$906,500

7/1. DTA related to Share-based payment transactions

1. Accounting for **equity-settled share based payment** schemes involves recognising an annual remuneration expense in P/L *throughout* the vesting period.

2. Tax relief (tax deduction of the remuneration expense) is **not** normally granted *until* the share options are **exercised**. *Thus*; taxable profit would exceed accounting profit **during** the vesting period. This gives rise to a **deductible** temporary difference (**T.D**) i.e. **DTA**.

3. The amount of **DTA** is **measured** based on the **intrinsic value** of the share options **not** on the periodic recognised remuneration expense.

Remember: Intrinsic value = F.V of the underlying share at each reporting period - the share's exercise price.

4. According to IAS # 12 'income taxes'; **DTA** is only recognised to the extent it is **probable** that future **taxable profits** are available to utilise the **deductible T.D**⁵.

5. The actual tax deduction *when* the share options are **exercised** is based on the **intrinsic value** of the award **at the date of exercise**.

6. *Where* the amount of the estimated future **tax deduction for the year** (not the **DTA** itself) **exceeds** the cumulative remuneration expense; the **tax deduction** associated with the excess should be recognised directly in equity.

Illustrative example (1): On 1, Oct, 2015 Omega granted 1,000 employees options to purchase 5,000 each of its shares. The options vest on 1, Oct, 2018 for those employees who remain employed by the entity *until* that date. The options allow the employees to purchase the shares for \$9 per share. The market price of the shares *and* the F.V⁶ of the share options (estimated using an appropriate option pricing model) varied as follows:

Date	Market price of share	Option F.V
1, Oct, 2015	\$9	\$2.10
30, Sep, 2016	9.30	1.90
30, Sep, 2017	9.60	1.50
30, Sep, 2018	9.90	0.90
1, Oct, 2018	9.90	0.90

On 1, Oct, 2015 the directors estimated that 50 employees would leave in **each** of the year-ended 30, Sep from 2016 to 2018 *but* 50 of the relevant employees did leave in both of the years-ended 30, Sep, 2016 *and* 2017. *However* the directors now believe that no further relevant employees will leave in the year-ended 30, Sep, 2018.

Omega is entitled to tax deduction in respect of the options *when they are exercised* based on their **intrinsic value** at that date. Omega tax rate is 25%.

Required: Prepare extracts that show the amounts that will appear in the SFP of Omega as at 30, Sep, 2016 to 2018 in respect of the share options *and* the amounts that will appear in P/L for the year-ended 30, Sep, 2016 to 2018. You should state *where* in the SFP *and where* in P/L the relevant amounts will be presented.

Answer:

A. Accounting for the share option:

Equity Calculation	Equity	Expense
30, Sep, 2016 [(1,000 - 150) employees × 5,000 options × \$2.10 × 1/3 years]	\$2,975,000	\$2,975,000
30, Sep, 2017 [(1,000 - 100) employees × 5,000 options × \$2.10 × 2/3 years]	6,300,000	3,325,000
30, Sep, 2018 [(1,000 - 100) employees × 5,000 options × \$2.10]	9,450,000	3,150,000

Description	Year-end		
	30, Sep, 2016	30, Sep, 2017	30, Sep, 2018
Dr: Operating expenses → P/L	\$2,975,000	\$3,325,000	\$3,150,000
Cr: Share option reserve → equity	\$2,975,000	\$3,325,000	\$3,150,000

Note: The recognised remuneration expense reduces **accounting profit** during the vesting period *while* it is added back to taxable income in the **tax return** *and* **taxed**. This *results in* future **deductible T.D** giving rise to **DTA** measured at **intrinsic value** *and* would reduce tax payable *when* **options** are **exercised**.

B. Accounting for DTA:

The **potential tax deduction** should be **measured** based on the **intrinsic value** of the **share option** at the relevant accounting dates as follows:

Description	Date			
	1, Oct, 2015	30, Sep, 2016	30, Sep, 2017	30, Sep, 2018
F.V of the share	\$9	\$9.30	\$9.60	\$9.90
Share exercise price	9	9	9	9
Intrinsic value	0	0.30	0.60	0.90

Year-end	Cumulative future deductible expense	Future deductible expenses for the year	Tax benefit For the year	DTA balance At year-end
30, Sep, 2016	[850 employees × 5,000 options × \$0.30 × 1/3 years] = \$425,000	\$425,000	\$425,000 × 25% = \$106,250	\$106,250
30, Sep, 2017	[900 employees × 5,000 options × \$0.60 × 2/3 years] = \$1,800,000	1,375,000	1,375,000 × 25% = \$343,750	450,000
30, Sep, 2018	[900 employees × 5,000 options × \$0.90] = \$4,050,000	2,250,000	2,250,000 × 25% = \$562,500	1,012,500

Remember: DTA is only recognised to the extent it is probable that future **taxable profits** are available to utilise the deductible T.D^s.

Description	Year-end		
	30, Sep, 2016	30, Sep, 2017	30, Sep, 2018
Dr: DTA	\$106,250	\$343,750	\$562,500
Cr: Income tax benefit-deferred	\$106,250	\$343,750	\$562,500

Note: Income tax **benefit-deferred** reduces income tax expense for the year.

Continued: From the previous example assume all entitled employees are exercised their share options on **1, Oct, 2018**.

Assume also that nominal value (par value) of share is \$4.

Required: Show the accounting effects of the above event assuming the pre tax accounting profit for the year-ended 30, Sep, 2019 amounted to \$34m.

Answer:

Number of shares exercised = 900 employee × 5,000 options = **4.50m shares**

Exercising the share options

Dr: Cash (4.50m shares × \$9 exercise price) = \$40.50m

Dr: Share option reserve \$9.45m

Cr: Share capital (4.50m shares × \$4 par value) = \$18m

Cr: Share premium (\$40.50m + \$9.45m - \$18m) = \$31.95m

Realising the DTA:

Amount recognised as a deductible **expense in tax return** for the year-ended 30, Sep, 2019 = 4.50m shares × **Intrinsic value at the date of exercise** \$0.90 = **\$4,050,000**

This deductible **expense** would reduce tax **payable** by **\$1,012,500** (\$4,050,000 × 25%) as follows:

Description	Amount
Pretax accounting profit	\$34,000,000
Less: Deductible T.D	(4,050,000)
Taxable profit	29,950,000
Income tax expense-current (\$29,950,000 × 25%)	7,487,500

Dr: Income tax expense-current \$7,487,500

Dr: Income tax expense-deferred \$1,012,500

Cr: Income tax payable \$7,487,500

Cr: DTA \$1,012,500

Continued: Assume the share price on 30, Sep, 2018 is \$8.90.

Required: Show the accounting effects of the above event.

Answer: the shares would not be exercised *and thus*; the following entries would be recorded on 30, Sep, 2018.

Dr: Share option reserve \$9,450,000

Cr: R.E^s \$9,450,000

Thus; DTA would not be realisable *and* it should be closed out as follows:

Dr: Income tax expense-current (\$34m × 25%) = \$8.50m

Dr: Income tax expense-deferred \$1,012,500

Cr: DTA \$1,012,500

Cr: Income tax payable \$8.50m

Note: from previous illustrative example it can be observed that there is **no** excess of the annual estimated future tax deduction over the cumulative remuneration expense at any time as follows:

Date	Annual estimated future tax deduction	Cumulative remuneration expense
30, Sep, 2016	\$425,000 → Lower	\$2,975,000
30, Sep, 2017	1,375,000 → Lower	6,300,000
30, Sep, 2018	2,250,000 → Lower	9,450,000

Thus; no need to allocate any part of the annually recognised DTA to equity

Illustrative example (2): Splash established a share option scheme for its four directors on 1, July, 2019.

Each director will be entitled to 25,000 share options *if* they remain with Splash for **four years** from the date the scheme was introduced.

Information regarding the share options is provided below:

F.V of option at grant date \$10.

Exercise price of option \$5.

The F.V of the shares at 30, June, 2020 was \$17 per share.

A tax deduction is only given for the share options when they are exercised.

The allowable deduction will be based on the intrinsic value of the options. Assume a tax rate of 30%.

Required: Calculate and explain the amounts to be included in the F/S^t of Splash for the year-ended 30, June, 2020 including explanation and calculation of any deferred tax implications.

Answer: The expense recognised for equity-settled share-based payment scheme is calculated based on F.V of the options at the grant date. This expense is spread over the vesting period. At each reporting date the entity should re-assess the number of options expected to vest.

The expense for the scheme in the year-ended 30, June, 2020 is \$250,000 (4 directors × 25,000 option × \$10 F.V of the option at grant date × 1/4 years).

For tax purposes; the allowed tax relief is based on the intrinsic value of the options at the date they are exercised.

On 30, June, 2020 the F.V per share was \$17 and its strike price was \$5. Thus; the intrinsic value per share is \$12 (\$17 - \$5)

DTA = 4 directors × 25,000 option × \$12 × 1/4 years = \$300,000 × tax rate 30% = \$90,000.

Where the amount of the estimated future tax deduction (T.D) for the year i.e. \$300,000 exceeds the cumulative remuneration expense i.e. \$250,000; this indicates that the tax deduction relates partly to the remuneration expense and partly to equity.

Therefore \$50,000 of the T.D is deemed to relate to equity. Thus; the DTA relating to this portion should be credited to equity as follows:

Dr: DTA (\$300,000 × 30%) = \$90,000

Cr: Income tax benefit-deferred (\$250,000 × 30%) = \$75,000 → P/L

Cr: OCI-other component of equity (\$50,000 × 30%) = \$15,000

Note: If the DTA is to be recognised; it must be capable of reliable measurement and also be regarded as recoverable from future taxable profits.

8/1. Modifications to the share options plan

When the original share option plan is **replaced** by another share option plan; the following steps are to be followed:

1. The **original options** based on original F.V of the share option at the grant date **continue to be recognised over the remaining original vesting period**.
2. The **replaced share options** are treated as a **modification** of the original plan. Thus; the **excess** of the F.V of the new options over the **F.V** of the cancelled options **at the replacement date** is recognised **prospectively over the new vesting period**.

Illustrative example: On 1, Jan, 2018 Piper made an award of 3,000 **share options** to each of its 1,000 employees if they remained *until* 31, Dec, 2020 in order to be entitled to the **share options**. At the date of the award *and* at 31, Dec, 2018 management estimated that 100 employees would leave before the vesting date. Piper accounted for the options correctly in its F/S^s for the year-ended 31, Dec, 2018. The F.V of each option on 1, Jan, 2018 was \$5.

The share price of Piper fell substantially during 2018.

On 1, Jan, 2019 the F.V of the **share options** had fallen to \$1 *each and* 975 of the employees remain employed.

During the year-ended 31, Dec, 2019 another 35 of those employees left *and* it is estimated that a further 40 would leave before 31, Dec, 2020.

Assume that on 1, Jan, 2019 Piper's management **cancelled** the share options *and replaced* them with **new share options** vesting on 31, Dec, 2021 *and* the F.V of each **replacement option** on 1, Jan, 2019 being \$7.

Assume that another 40 employee are expected to leave before 31, Dec, 2021.

Required: Discuss with suitable calculations the accounting treatment of the share options in Piper's F/S^s for all years *assuming* management expectations *regarding* the numbers of employees prove to be correct.

A. The **original options** based on original F.V of the share option at grant date **continue to be recognised over the remaining original vesting period** (three years)

B. The **replaced share options** are treated as a **modification** of the original plan. Thus; the excess of the F.V of the **new options** (\$7) over the **F.V** of the cancelled options **at the replacement date** (\$1) is charged to P/L over the **new vesting period** (three years).

Equity Calculation	Equity	Expense
31, Dec, 2018: original arrangement [(1,000 - 100) employee × 3,000 options × \$5 × 1/3 years]	\$4.50m	\$4.50m
Total 2018	4.50m	4.50m
31, Dec, 2019: original arrangement [(1,000 employees - 25 left in 2018 - 35 left in 2019 - 40 expected to leave in 2020 - 40 expected to leave in 2021)] × (3,000 option × \$5 × 2/3 years)	8.60m	4.10m
31, Dec, 2019: replaced plan [(1,000 employees - 25 left in 2018 - 35 left in 2019 - 40 expected to leave in 2020 - 40 expected to leave in 2021)] × (3,000 option × (\$7- \$1) × 1/3 years)	5.160m	5.160m
Total 2019	13.76m	9.26m
31, Dec, 2020: original arrangement [(1,000 employees - 25 left in 2018 - 35 left in 2019 - 40 expected to leave in 2020 - 40 expected to leave in 2021)] × (3,000 option × \$5)	12.90m	4.30m
31, Dec, 2020: replaced plan [(1,000 employees - 25 left in 2018 - 35 left in 2019 - 40 expected to leave in 2020 - 40 expected to leave in 2021)] × (3,000 option × (\$7- \$1) × 2/3 years)	10.32m	5.160m
Total 2020	23.22m	9.46m
Dec, 31, 2021:	12.90m	0
31, Dec, 2021: replaced plan [(1,000 employees - 25 left in 2018 - 35 left in 2019 - 40 expected to leave in 2020 - 40 expected to leave in 2021)] × [3,000 option × (\$7- \$1)]	15.48m	5.160m
Total 2021	28.38m	5.160m

3. If the **modification** is related to tightening **non-market vesting conditions** that is difficult to be met by the employees; IFRS **Accounting Standard** # 2 states that 'when a share option scheme is **modified**; the entity must recognise as a **minimum** the services received measured at **F.V** at the **grant date**'.

Illustrative example: Bright future Co. grants 100 share **options** to each of the 15 employees in its sales team **provided** they remain in service over the next three years **and** the team must sell more than 40,000 units of a particular product over the three-year period. **F.V** of each option at the grant date is \$20.

During the second year the entity **increases** the sales target to 70,000 units. By the end of the third year only 60,000 units have been sold **and** the share options do **not** vest.

Assume all 15 employees remain with the entity for the full three years.

Required: Calculate the amounts to be recognised in the F/S^s for each of the three years of the scheme.

Answer: IFRS **Accounting Standard** # 2 states that; 'when a share option scheme is **modified**, the entity must recognise as a **minimum** the services received **measured** at **F.V** at the **grant date**'. The employees have **not** met the **modified** sales target **but** did meet the **original target** set on **grant date**. **Thus**; the entity must recognise the **expense** that it would have incurred had the **original** scheme continued in force.

Total amount recognised in **equity and expenses** over the three years would be **\$30,000** (15 employee × 100 option × \$20) of which **\$10,000** is recognised each year.

9/1. Cancellations and settlements of the scheme

When a share option scheme is canceled or settled **before** vesting date **then**;

1. Cancellation with **early settlement** of the scheme is treated as an **acceleration** of vesting. Accordingly, the amount that would have been recognised for services received over the **remaining** vesting period is **immediately recognised** as follows:

Dr: Operating cost SXX → P/L

Cr: Share option reserve SXX → equity 'under equity-settled share based payments' *or*

Cr: Liability on SAR^s SXX → 'under cash-settled share based payments'.

2. The **amount paid** as settlement is treated as a **repurchase** of previously granted share option. This **reduces equity** by an amount equal to the **F.V** of the share option at **cancellation date** with any **excess of cash paid** is recognised in P/L.

Illustrative example: An entity introduced an equity-settled share-based payment scheme on 1, Jan, 2018 for its 5 directors. 1,000 options are granted to each director provided they remain for the next four years. All directors are expected to stay for the full four years. **F.V** of each option at the grant date was \$8.

On 30, June, 2019 the entity **cancelled** the existing scheme *and* paid compensation of \$10 per option to each of the 5 directors. The **F.V** of the options at 30, June, 2019 was \$9.

Required: Explain with calculations how the **cancellation and settlement** of the share-based payment scheme should be accounted for in the year-ended 31, Dec, 2019.

Answer:

A. Amount recognised up to 31, Dec, 2018 would be **\$10,000** [(5 directors' × 1,000 options × \$8) / 4 years]. This amount was recorded on 31, Dec, 2018 as follows:

Dr: Operating cost \$10,000 → P/L

Cr: Share option reserve \$10,000 → equity

B. This **cancellation** is treated as an **acceleration** of vesting; so the amount that would have been charged over the remaining three year vesting period is **recognised immediately** in P/L on 30, June, 2019 as follows:

[(5 directors × 1,000 options × \$8) - \$10,000 previously recognised] = \$30,000

Dr: Operating cost \$30,000 → P/L

Cr: Share option reserve \$30,000 → equity

C. The **amount paid** as settlement is treated as **repurchase** of previously granted share option *and* it **reduces equity** by an amount equal to the **F.V** of the share option previously granted **at the cancellation/settlement date** \$9, the **excess cash paid** is recognised in P/L as follows:

Dr: Share option reserve \$40,000

Dr: OCI-other component of equity $[(5 \text{ directors} \times 1,000 \text{ options} \times \$9) - \$40,000] = \$5,000$

Dr: Operating cost \$5,000 → P/L

Cr: Cash $(5 \text{ directors} \times 1,000 \text{ options} \times \$10) = \$50,000$

Notes:

1. If the F.V of the **share option** was \$7 that already paid in **settlement** then; the following entry is recorded:

Dr: Share option reserve \$40,000

Cr: Cash $(5 \text{ directors} \times 1,000 \text{ options} \times \$9) = \$35,000$

Cr: R.E^s $[5 \text{ directors} \times 1,000 \text{ options} \times (\$8 - \$7)] = \$5,000$

2. If the option scheme is **cancelled** at the end of the first year **without settlement** then; the following entry is recorded:

A. No further expenses would be recognised for the remaining period as no **settlement** is involved

B. The option reserve balance is closed in R.E^s as follows:

Dr: Share option reserve \$10,000

Cr: R.E^s \$10,000

10/1. The effect of Share based payments on

consolidated F/S

Illustrative example (1): On 1, April, 2018 the parent granted share options to senior executives that are due to vest on 31, March, 2021. The maximum number of options that can vest is 10m. However there are vesting conditions that are service conditions. Each option allows the holder to purchase a parent's share for \$2.50.

Further details are as follows:

Date	Share price	F.V of an option	Number of options expected to vest
1, April , 2018	\$2.50	36 cents	9m
31, March, 2019	2.80	55 cents	9.20m
31, March, 2020	3	90 cents	9.30m

On 31, March, 2019 the directors correctly credited other components of equity and debited P/L with \$1,104,000 in respect of these share options. No entries have been made in the F/S since then in respect of the options.

Ignore any deferred tax implications of the granting of these share options.

Required: Show the effects on consolidated F/S for the year-ended 31, March, 2020.

Answer:

- This case represents equity settled share based payment.
- Market conditions are only taken into account at initial measurement of the option's F.V on the grant date without any subsequent adjustment. Thus; the F.V of the option would be \$0.36 during the vesting period.
- Non market condition related to employees remaining in the service for the next three years is revised during the vesting period as information becomes available. Thus; in the current year the expense would be based on 9.30m option.

Year-ended	Equity	Expense
31, March, 2019	$\frac{9.20\text{m option} \times \$0.36}{3 \text{ Years}} = \$1,104,000$	\$1,104,000
31, March, 2020	$\frac{9.30\text{m option} \times \$0.36}{3 \text{ Years}} \times 2 \text{ Years} = \$2,232,000$	$\$2,232,000 - \$1,104,000 = \$1,128,000$

Description	Consolidated P/L	Consolidated SFP
Recording current year charges	Dr: Adm. Exp-Parent \$1,128 Cr: Other component of equity-Parent \$1,128	Dr: R.E \$1,128 Cr: Other component of equity-Parent \$1,128

11/1. Accounting for Cash-settled

Share based payment

1. When an entity grants **cash-settled** share based payments in the form of share appreciation rights (SAR^s) to its employees, it should recognise an **expense** (or asset as appropriate) and corresponding **liability** on SAR^s over the vesting period.
2. The amounts recognised over the vesting period are based on **F.V** of the SAR^s **at each reporting date rather than** the **F.V** at the grant date (subject to adjustments for changes in **F.V** after the reporting date *until* the F/S^s are authorised for issue). That **F.V** is **adjusted** for **all** relevant **vesting conditions** because the ultimate payment will be made in cash *and* the credit is to **liability** on SAR^s *rather than* equity. Thus; measurement of the remuneration **expense** will be based on **F.V** of the SAR^s.

Illustrative example (1): Lambda prepares F/S^s for the year-ended 30, Sep, 2019. Lambda has a number of highly skilled employees that it wishes to retain *and* has put a scheme in place to discourage employees from leaving as follows:

On 1, Oct, 2016 Lambda granted two SAR^s to 250 employees. Each right gave the holder cash payment of \$100 for every 50 cent increase in the share price from 1, Oct, 2016 to the date the rights vest. The rights vest on 30, Sep, 2019 for those employees who continue to work for Lambda *throughout* the three-year period. Payment is due on 31, Jan, 2020. **Relevant data is as follows:**

Date	Share price	F.V of SAR	Expected number of employees whose rights would vest
1, Oct, 2016	\$9	\$500	240
30, Sep, 2017	10	520	235
30, Sep, 2018	11	540	240
30, Sep, 2019	12	600	238 (the actual number in whom 2 rights vested)

Required:

1. Compute the charge to P/L and SFP over the vesting period.
2. Show the accounting treatment over the vesting period **and** plan settlement on 31, Jan, 2020.

Answer:

1. Amounts of **liability** *and* **expenses** to be recognised during the vesting period:

Date	Liability calculation based on F.V of SAR ⁵	Liability balance	(change in liability balance)
At grant date 1, Oct, 2016	No recognition because no employee's services (related to the grant) are rendered yet. The expected total expense and increase in liability if all employees stay over the service period = [(250 - 10) employee × 2 SAR × \$500] = \$240,000. This amount is recognised over the next three years and adjusted for all vesting conditions .	0	0
30, Sep, 2017	$\frac{235 \text{ Employee} \times 2 \text{ SAR} \times \$520}{3 \text{ Years}} = \$81,467$	\$81,467	\$81,467
30, Sep, 2018	$\frac{240 \text{ Employee} \times 2 \text{ SAR} \times \$540}{3 \text{ Years}} \times 2 \text{ Years} = \$172,800$	\$172,800	\$91,333
30, Sep, 2019	238 employees × 2 SAR ⁵ × \$600 = \$285,600	\$285,600	\$112,800

Description	Year-end		
	30, Sep, 2017	30, Sep, 2018	30, Sep, 2019
Dr: Operating expenses → P/L	\$81,467	\$91,333	\$112,800
Cr: Liability on SAR ⁵	\$81,467	\$91,333	\$112,800

2. Plan settlement on 31, Jan, 2020

Dr: **Liability** on SAR⁵ \$285,600

Cr: Cash \$285,600

Illustrative example (2): The following share-based payment arrangement for Kappa was in force during the year ended 31, March, 2019:

On 1, April, 2017 Kappa granted SAR⁵ to 50 senior employees. The number of rights to which each employee become entitled depends on the cumulative profit of Kappa for the three years-ended 31, March, 2020:

Number of SAR ⁵ awarded per employee	Cumulative profit for the three year period
1,000	Below \$0.50m
1,500	Between \$0.50m and \$1m
2,000	In excess of \$1m

On 1, April, 2017 Kappa expected that the cumulative profits for the three-year period would be \$0.80m. After the disappointing financial results for the year-ended 31, March, 2018, this estimate was revised at that time to \$0.45m. *However* given the improvement in results for the year-ended 31, March, 2019 the estimate was revised again at 31, March, 2019 to

\$1.10m. On 1, April, 2017 the F.V of one SAR was \$1.10. This estimate was revised to \$0.90 at 31, March, 2018 and to \$1.20 at 31, March, 2019. All senior employees are expected to remain employed by Kappa for the relevant three-year period. The rights are exercisable on 30, June, 2020.

Required: Show how and where the previous transaction would be reported in the F/S^s of Kappa for the year-ended 31, March, 2019.

Answer:

Date	During the vesting period Liability calculation based on F.V of SAR ^s	Liability balance	Expense (change in liability balance)
At grant date 1, April, 2017	No recognition because no employee's services (related to the grant) are rendered yet.	0	0
31, March, 2018	$\frac{50 \text{ Employee} \times 1,000 \text{ SAR} \times \$0.90}{3 \text{ Years}} = \$15,000$	\$15,000	\$15,000
31, March, 2019	$\frac{50 \text{ Employee} \times 2,000 \text{ SAR} \times \$1.20}{3 \text{ Years}} \times 2 \text{ Years} = \$80,000$	\$80,000	\$65,000

Description	Year-end	
	31, March, 2018	31, March, 2019
Dr: Operating expenses → P/L	\$15,000	\$65,000
Cr: Liability on SAR ^s	\$15,000	\$65,000

- Under the principles of IFRS **Accounting Standard** # 2 'Share-based Payment' the granting of SAR^s to senior employees is a **cash-settled share based payment**.

- **Cash-settled share-based payments** create a **liability** in the SFP as they will ultimately be redeemed in cash.

- The **liability** is recognised based on **F.V** of the SAR at each **reporting date** and the expected number of rights which will vest.

- This liability is built up over the vesting period.

- For the year-ended 31, March, 2018 the expected **total cost** will be $(50 \text{ employee} \times 1,000 \text{ SAR}^s \times \$0.90) = \$45,000$.

-The amount recognised in P/L in the prior period and recognised as a **liability** will be **\$15,000** $(\$45,000 \times 1/3)$.

- At 31, March, 2019 the **liability** will be **\$80,000** $(50 \text{ employee} \times 2,000 \text{ SAR}^s \times \$1.20 \times 2/3)$.

- Since the rights are exercisable on 30, June, 2020 the **liability** will be **non-current**.

-The charge to P/L for the year-ended 31, March, 2019 will be **\$65,000** $(\$80,000 - \$15,000)$. This will be included in P/L as employment expenses.

3. Cash settlement period could be for many months after the vesting date; although this would **not** affect amounts recognised in **equity** under **equity-settled** share based payments **but** under **cash-settled** share based payment the **cash paid** is measured at **intrinsic value** and the remaining **liability** is re-measured at **F.V** each **reporting period** *until* settled. Differences in the re-measured remaining unpaid **liability** are recognised in P/L as G/L.

Note: The **intrinsic value** of SAR will increase as the current **F.V** of the share price increases and vice versa.

Illustrative example: On 1, Jan, 2015 Copra Co. **granted** 100 cash SAR^s to each of its 500 employees **provided** that they continue *until* 31, Dec, 2017.

- During 2015; 35 employees leave. Copra estimated that a further 60 will leave during 2016 *and* 2017.

- During 2016; 40 employees leave *and* the entity estimates that a further 25 will leave during 2017.

- During 2017; 22 employees leave.

- At 31, Dec, 2017; 150 employees exercise their SAR^s.

- Another 140 employees exercise their SAR^s at 31, Dec, 2018 *and* the remaining 113 employees exercise their SAR^s at the end of 2019.

- The **F.V** of the SAR^s for each year in which a **liability** exists are shown below together with the **intrinsic values** at the dates of exercise.

Year-end	F.V of SAR	Intrinsic value of SAR
2015	\$14.40	
2016	15.50	
2017	18.20	\$15
2018	21.40	20
2019		25

Required: Calculate the amount to be recognised in the P/L for each of the five years-ended 31, Dec, 2019 *and* the **liability** to be recognised in the SFP at 31, Dec for each of the five years.

Answer:

1. During the vesting period the **expense** is based on the entity's estimate of the number of SAR^s that will actually vest. The **F.V** of SAR^s is re-measured at each **reporting date**. *Thus*, the **liability** is measured at the **F.V** of SAR^s at each reporting date.

Date	During the vesting period Liability calculation based on F.V of SAR ^s	Liability balance	Expense (change in liability balance)
At grant date 1, Jan, 2015	No recognition because no employee's services (related to the grant) are rendered yet.	0	0
31, Dec, 2015	$\frac{405 \text{ Employee} \times 100 \text{ SAR} \times \$14.40}{3 \text{ Years}} = \$194,400$	\$194,400	\$194,400
31, Dec, 2016	$(400 \text{ employees} \times 100 \text{ SAR}^s \times \$15.50) \times 2/3 \text{ years} = \$413,333$	\$413,333	\$218,933
31, Dec, 2017	$403 \text{ employees} \times 100 \text{ SAR}^s \times \$18.20 = \$733,460$	\$733,460	\$320,127

Description	Year-end		
	31, Dec, 2015	31, Dec, 2016	31, Dec, 2017
Dr: Operating expenses → P/L	\$194,400	\$218,933	\$320,127
Cr: Liability on SAR ^s	\$194,400	\$218,933	\$320,127

2. After vesting date any SAR^s exercised (paid) is calculated based on intrinsic value of the SAR^s at payment date the remaining liability is re-measured at F.V of the un-exercised SAR^s with any difference is reflected in P/L as an expense or recovery as follows:

Date	F.V of Liability on SAR ^s			Cash paid based on intrinsic value	G/L
	Before payment	After payment	Difference Dr		
31, Dec, 2017	\$733,460	$[(403 - 150) \times 100 \text{ SAR}^s \times \text{F.V } \$18.20] = \$460,460$	\$273,000	$[150 \times 100 \text{ SAR}^s \times \text{intrinsic value } \$15] = \$225,000$	$273,000 - 225,000 = \$48,000 \text{ gain}$
31, Dec, 2018	460,460	$[(253 - 140) \times 100 \text{ SAR}^s \times \text{F.V } \$21.40] = \$241,820$	218,640	$[140 \times 100 \text{ SAR}^s \times \text{intrinsic value } \$20] = \$280,000$	$218,640 - 280,000 = \$61,360 \text{ loss}$
31, Dec, 2019	241,820	0	241,820	$[113 \times 100 \text{ SAR}^s \times \text{intrinsic value } \$25] = \$282,500$	$241,820 - 282,500 = \$40,680 \text{ loss}$

Description	Year-end		
	31, Dec, 2017	31, Dec, 2018	31, Dec, 2019
Dr: Liability on SAR ^s	\$273,000	\$218,640	\$241,820
Dr: Loss on SAR ^s settlement	-----	\$61,360	\$40,680
Cr: Cash → based on intrinsic value	\$225,000	\$280,000	\$282,500
Cr: Gain on SAR ^s settlement	\$48,000	-----	-----

4. F.V of SAR at any time = F.V of the underlying share at that time - F.V of the underlying share at grant date.

Illustrative example: Jay granted 20 SAR^s to each of its 500 employees on 1, Jan, 2017. The rights are due to vest on 31, Dec, 2019 with payment being made on 31, Dec, 2020.

Assume that 80% of the awards estimated to be vest and actually vested.

Date	Share prices	Intrinsic value of SAR
1, Jan, 2017	\$15	\$2.35
31, Dec, 2017	18	2.75
31, Dec, 2018	19	2.85
31, Dec, 2019	21	3.50
31, Dec, 2020	19	4

Required: Calculate the **liability** balance on 31, Dec, 2019 for the SAR^s

Answer: **Liability** on SAR^s is measured based on F.V.

F.V of SAR^s at 31, Dec, 2019 = F.V of the underlying share at 31, Dec, 2019 is \$6 (\$21- F.V of the underlying share at grant date on 1, Jan, 2017 was \$15).

Liability balance on 31, Dec, 2019 = 500 employee's × 80% × 20 SAR^s × \$6 = \$48,000.

Continued: How should the settlement of the transaction is accounted for on 31, Dec, 2020?

Answer:

Payment = 500 employee's × 80% × 20 SAR^s × \$4 intrinsic value = \$32,000 → intrinsic value

Gain = \$48,000 - \$32,000 = \$16,000.

Dr: **Liability** on SAR^s \$48,000

Cr: Cash \$32,000 → intrinsic value

Cr: **Gain** on settlement of SAR^s \$16,000 → P/L.

12/1. Replacing cash scheme with an equity scheme

The entity may modify the terms of cash-settled share-based payment scheme so that it becomes classified as equity-settled scheme. In such case IFRS Accounting Standard # 2 requires the entity to:

1. Measure the transaction by reference to the F.V of the options granted at the modification date;
2. Derecognise the liability and recognise equity to the extent of the services rendered by the modification date;
3. Recognise the difference (debit or credit) between the liability derecognised and the equity recognised immediately in P/L;
4. Subsequently the transaction is accounted for as an equity-settled transaction from the date of the modification.

Illustrative example: Assume Tara Co. decided to change its cash-settled to equity-settled scheme at the beginning of the second year. The following information was available:

- Vesting date is at the end of the third year.
- The balance of the liability on SAR\$ at the first year-end was \$1.20m.
- Estimated number of eligible executives at the vesting date 600.
- Number of share options granted at the start of the second year 1,000 share options.
- F.V of the share option at the start of the second year \$5.

Required: Determine the appropriate accounting at the modification date

Answer: The amount that should be reclassified as equity (option reserve) at the modification date = $[(600 \text{ executives} \times 1,000 \text{ options} \times \$5) / 3 \text{ years}] = \$1,000,000$.

Dr: Liability on SAR\$ \$1,200,000

Cr: Modification gain \$200,000 → P/L

Cr: Option reserve \$1,000,000

12/2. Hybrid transactions

If the share-based payment transaction can be settled *either* in cash *or* by issuing equity instruments; IFRS Accounting Standard # 2 states that:

If settlement method is controlled by the entity	If settlement method is controlled by the counterparty
The transaction is accounted for as equity -settled share-based payment scheme.	In this case the entity has granted a compound financial instrument that must be accounted for under split accounting where; debt component is initially measured its F.V at the grant date and the residual is considered the value related to equity component. -The amount initially allocated to equity component is spread over the vesting period without being re-measured until settlement, reflecting the equity-settled component. -The debt component is re-measured to its F.V at each year-end until settlement date reflecting the cash-settled component.

Illustrative example: On 1, Oct, 2019 Valley Co. granted one of its directors the right to choose *either* 25,000 shares in Valley *or* as cash payment equal to the value of 20,000 of phantom's Co. shares (another entity) this right is conditional on the director's remaining in employment for four years from the grant date.

Valley estimates that the F.V of the share alternative (**share option**) at the grant date is \$5 per share.

Phantom's market share price on 1, Oct, 2019 was \$5.25 and \$6.40 on 30, Sep, 2020.

Required: Explain the accounting treatment of the above transaction for the year-ended 30, Sep, 2020.

Answer:

1. The right granted to the director represents a **share based payment** with a **choice of settlement** where the counterparty has a **choice** to settle as **equity** of Valley **or cash payment** based on **F.V** of phantom's shares. *Thus*; the plan granted by Valley is considered a **compounded financial instrument**.

2. According to IAS # 32 'Financial instrument presentation' **compounded financial instrument** must be **initially** (At the grant date) broken down into **equity** component (**equity settled**) and **debt** component (**cash settled**).

3. The **F.V** of **debt** component is **first measured** at the **grant date** and the residual is considered as the **equity** component consistent with the definition of equity.

4. **Residual (equity component)** = $[(25,000 \text{ share option} \times \$5) - (20,000 \text{ phantom's shares} \times \$5.25)] = \$20,000$

5. The **equity** component is **spread over** the vesting period *without* subsequent **re-measurement**.

For the year-ended 30, Sep, 2020 Valley should make the following accounting entry relating to the **equity** component of the plan:

Dr: Operating expenses $(\$20,000/4 \text{ years}) = \$5,000 \rightarrow \text{P/L}$

Cr: Share option reserve-equity \$5,000

6. The accounting treatment for the **debt** component follows the treatment for **cash settled** scheme *thus*; the entry for the year-ended 30, Sep, 2020 is as follows:

Dr: Operating expenses $(20,000 \text{ phantom's shares} \times \text{F.V at year-end } \$6.40)/4 \text{ years} = \$32,000 \rightarrow \text{P/L}$

Cr: **Liability** on SAR\$ \$32,000

7. The **debt** component should be **re-measured** to reflect the **F.V** of the **cash alternative** at each year-end up to the vesting date.

13/1. Disclosures

1. A description of share-based payment arrangements;
2. The number of share options granted *or* exercised during the year *and* outstanding at the year-end;
3. The total share-based payment **expense** recognised in P/L for the period **and** the carrying amount of **liabilities** arising from share-based payment transactions that recognised in the SFP;
4. How the **F.V^s** have been determined.

14/1. **Arguments against recognising share-based payments**

1. No cost *therefore* no charge

A charge for **share options** should **not** be recognised because the entity does **not** have to sacrifice cash *or* other assets. *Thus*, there is **no** cost to the entity.

Comment: This argument ignores the fact that; the employees have provided valuable services to the entity in return for valuable share options. *If* this argument were accepted; the F/S^s would fail to reflect the economic transactions that had occurred.

2. EPS would be hit twice

The charge to P/L **during** the vesting period reduces EPS *and when* the strike price is lower than **F.V** of the shares *then*; the shares **exercised** would increase the number of shares issued *and* reduces EPS even more.

Comment: This is not a valid argument because the double impact on BEPS simply reflects **two economic events** that have occurred *and* should be reflected in F/S^s:

A. Recognising the expense **during the vesting period** reflects the consumption of economic resource (services provided).

B. Issuance of shares *when options are exercised*; reflects the consideration paid by the entity for the directors' services received as consideration.

Also DEPS calculation only reflects the **issue** of the options, there is no adjustment to BEPS. There is no 'double counting'.

3. Adverse economic consequences

Recognition of employee share-based payment might discourage entities from introducing *or* continuing employee share plans.

Comment: Accounting for share-based payments **avoids** the economic distortion created *when* entities consume resources (benefits from the employees' efforts) *without* having to account for such transactions.

IFRS Accounting Standard # 2 rejects these arguments all

Illustrative example: The directors of Vident are reviewing the impact of IFRS **Accounting Standard # 2** 'Share-based payment' on the F/S^s for the year-ended 31, Dec, 2019. The directors are unhappy about **having to** apply the standard *and* have put forward the following arguments as to **why** they should recognise an **expense** for share-based payments.

1. They feel that share options have no cost on the entity *and therefore* there should be no expense charged in P/L.
2. They do not feel that the expense arising from **share options** under IFRS **Accounting Standard # 2** actually meets the definition of an expense under the Conceptual Framework.
3. The directors are worried about the **dual impact** on EPS as an **expense** is shown in the statement of P/L during the vesting period *and* the negative impact on BEPS *when* the underlying shares are issued.
4. They feel that accounting for share-based payment may have an adverse effect on their entity *and* may discourage it from

Required: Explain reasons **why** share-based payments should be recognised in F/S^s and **why** the directors' arguments are unacceptable.

Answer:

Why share based payments effects should be recognised in the F/S^s.

IFRS Accounting Standard # 2 'Share-based payment' applies to all share option schemes granted after 2002. The directors have put forward several arguments for not recognising the **expense** of remunerating directors in this way.

1. Share options have no cost to the entity.

When shares are issued for cash *or* in a business combination, an accounting entry is needed to recognise the receipt of cash (*or* other resources) as consideration for the issue. **Share options** (the right to receive shares in future) are also issued in consideration for resources; i.e. **services rendered** by directors *or* employees. These resources are consumed by the entity *and* it would be inconsistent not to recognise an **expense**.

2. Share issues do not meet the definition of an **expense in the IASB Conceptual Framework.**

The Framework defines an **expense** as a decrease in assets *or* increase in liabilities that result in decrease in equity *other than* those relating to distributions to holders of equity claims. It is not immediately obvious that employee services meet the definition of an asset *and therefore* it can be argued that consumption of those services does not meet the definition of an **expense**. *However* **share options** are issued for consideration in the form of **employee services** *so that* arguably there is an asset *although* it is consumed at the same time that it is received. *Therefore* the recognition of an **expense** relating to share based payment is consistent with the Conceptual Framework.

3. EPS would be hit twice.

This is **not** a valid argument because the double impact on BEPS simply reflects **two economic events** that have occurred *and* should be reflected in F/S^s:

A. Recognising the **expense** during the vesting period reflects the consumption of economic resource (services provided).

B. **Issuance** of shares *when* options are **exercised** reflects the consideration paid by the entity for the directors' services received as consideration.

Also DEPS calculation only reflects the **issue** of the **options**, there is no adjustment to BEPS. There is no 'double counting'.

4. Accounting for share based payment may discourage the entity from introducing new share option plans. This is quite possibly true. Accounting for share based payment reduces earnings. *However* it improves the information provided in the F/S^s as these make users aware of the economic consequences of **issuing share options** as remuneration. The economic consequences are the reason why **share option** schemes may be discontinued. IFRS Accounting Standard # 2 simply enables management *and* shareholders to reach an informed decision on the best method of remuneration.

1/1. Examinable syllabus guide for

December 2025 to June 2026 according to ACCA

Earnings per share

- Recognise the importance of comparability in relation to the calculation of earnings per share (EPS) and its importance as a stock market indicator.
- Explain why the trend of EPS may be a more accurate indicator of performance than a company's profit trend.
- Define earnings for EPS purposes.
- Calculate the EPS in the following circumstances:
 - where the number of issued ordinary shares is constant throughout the year.
 - where there has been an issue of ordinary shares at fair value during the year.
 - where there has been a bonus issue of ordinary shares/stock split during the year,
 - where there has been a rights issue of ordinary shares during the year.
 - where there has been more than one change in the number of issued ordinary shares during the year
- Explain the relevance to existing shareholders of the diluted EPS, and describe the circumstances that will give rise to a future dilution of the EPS.
- Compute the diluted EPS in the following circumstances:
 - where convertible debt or preference shares are in issue
 - where share options and warrants exist.
- Identify anti-dilutive circumstances.

After studying our material and solving related questions, please refer back to the points above to make sure you fully cover it well.

1/2. Overview

1. *Although* any condensed **measure** of **earnings** inevitably risks being incomplete; investors *and* potential investors find comfort with **EPS** as a 'short hand' means of **measuring** the entity's performance for the period. **EPS** is the basis for **calculating** Price/**Earnings** (P/E) ratio (**earning multiplier**).
2. IAS # 33 '**EPS**' was issued in 1997 *and* updated in 2003.
3. IAS # 33 **requires** **basic EPS (BEPS)** to be disclosed for each period for which a statement of P/L is being reported.
4. IAS # 33 **requires** also **diluted EPS (DEPS)** to be disclosed *if diluted*; to avoid misleading current shareholders *regarding* their claim to **future earnings** of the entity.
5. **BEPS and DEPS** based on **profits or loss** from **continuing operations** and net **profit or loss** for the year **must** be disclosed on the **face** of the statement of P/L for each **period** the statement reported.
6. **BEPS and DEPS** for **discontinued operations** can *either* be disclosed on the face of P/L *or* in the notes.
7. **BEPS and DEPS** information shall be **presented** for **each class** of **ordinary shares** that has different right to the **profit or loss** for the period.
8. The **objective** of IAS # 33 is to determine the amount of **earnings** attributable to each **ordinary share** *and* enhance **comparability** of the entity's **performance** in different accounting periods because **EPS** is thought to give a **more reliable measure** of the entity's **trend of profits** than the trend shown by the **profits** themselves.
9. IAS # 33 is applicable to **listed** entities with publicly traded **ordinary share or potential ordinary share**.
10. *When* a parent **presents** separate *and* consolidated F/S^s together; **EPS** is required to be disclosed only for the consolidated F/S^s because F/S^s users are interested in the results of operations of the group as a whole.
11. *If* a private entity **voluntarily** chooses to report **EPS** it **must** comply with IAS # 33.
12. IAS # 33 applies **from** the date *when* the consideration is received by the issuer of **ordinary share**.

2/1. General Concepts

1. Simple capital structure; exists *when* the capital structure consists **solely** of **ordinary shares** and includes **no potential ordinary shares**.

2. Ordinary share is an **equity instrument** that is subordinate to all other classes of **equity instruments**.

It participates in **profit** for the period *only after* other types of shares *such as* **preference shares** have participated.

Example: *If* Tona has two classes of shares; Class X and Class Y. Class X is entitled to a **predetermined fixed dividends** of \$2 per share plus a **dividend** of 5% of the year's **net profit** and Class Y is entitled to a **dividend** of 5% only.

Required: Determine which class is an **ordinary share**.

Answer: Class X share is **not ordinary share** as the **predetermined fixed dividend** per share of \$2 creates a **preference** over Class Y shares and hence Class Y shares are subordinate to Class X shares. The **fixed dividends** on Class X are treated as **preferred dividends** that should be subtracted from **profits** before **calculating EPS** on Class Y shares. *Thus;* Class X would **not** be included in the calculation for **EPS**.

3. Potential ordinary shares are **financial instruments** or other contracts which could result in issuance of **ordinary shares** to its holder that *if issued* could **dilute** (reduce) **EPS** *such as* **convertible debt** or **convertible preference shares**, **share warrants**, **share options**, **shares** issuable to employees as part of their remuneration and employee share purchase plans.

2/2. Numerator of BEPS

1. The numerator of BEPS is **net profit available to ordinary shareholders** that must **exclude**;

A. Non-controlling interest (NCI) share in **net profit** 'in consolidated F/S';

B. Employee profit sharing;

C. Claims of senior **securities** that must be satisfied first *such as* **dividends** on preference shares;

(♦): If preference shares are **non-cumulative**; only **dividends declared during the year** are **excluded** from net profit (or added to the net loss).

(♦): If preference shares are **cumulative** the **current year** dividends are deducted from numerator *regardless of* **dividend declaration**.

Notes:

■ Unpaid **preference share dividends** in arrears should be disclosed.

■ Amounts deducted from the **net profit** and transferred to **reserves** are **not excluded** from numerator because these amounts represent a part of **net profit** that belongs to **ordinary** shareholders.

2. If **premium** (amount in excess of carrying value) is **paid** currently to retire preference shares *or* annually appropriated (deducted) from **net profit** to retire preference shares; this **premium** is **deducted** from numerator.

3. If preference shares are redeemed at a value lower than its carrying amount; the difference is **added** to the **numerator**.

4. If a **premium** (sweetener) is **paid** (in cash *or* in terms of improved conversion terms) to encourage the conversion of **convertible preference shares** to **ordinary shares**; that cash payment *or* the F.V of additional **ordinary shares** granted as a sweetener/inducement is **deducted** from numerator.

5. For '**increasing rate**' preferred shares *where* the **dividend** rate is lower in early years *and* higher in later years, the amount of preferred **dividends** in the early years must be **adjusted** using effective yield method.

Note: Under IAS # 32 'Financial instruments-Presentation' the dividend of **redeemable** preference shares are included in P/L as finance costs.

Example: Extracts from the group of James F/S^s, a public entity for year-ended 30, April, 2020.

Before tax profit from continuing operations \$35m;

Income tax \$7.50m;

Loss on discontinued operations net of tax relief of \$0.50m is \$1.50m;

NCI \$1.50m after considering loss on discontinued activities;

Preference share appropriation; current and past year dividends \$30,000;

Preference share; other appropriations related to the current year \$5,000;

There is a profit share scheme whereby employees receive a bonus of 5% of profits after tax and preference share claims.

Required: Calculate the numerator of BEPS.

Answer:

Numerator of BEPS	
Description	Amount
Profit from continuing operations before tax	\$35,000,000
Less: Income tax expense	(7,500,000)
Net profit from continuing operations	27,500,000
Less: Loss on discontinued operations	(1,500,000)
Net profit for the year	26,000,000
Less: NCI share in net profit	(1,500,000)
Profit available to parent shareholders and employee profit sharing	24,500,000
Less: Preference share dividends current year only	(15,000)
Less: Preference share other appropriations related to the current year	(5,000)
Employee profit sharing base	24,480,000
Less: Employee profit sharing ($\$24,480,000 \times 5\%$)	(1,224,000)
Net profit available for ordinary shares	23,256,000

2/3. Denominator of BEPS

Weighted average number of ordinary shares outstanding

Denominator of BEPS is affected by the following events:

1. Newly issued ordinary shares during the period: these are added to the **denominator** from the date of **issuance** i.e. **when the consideration is received** because the consideration received contributes to the generation of earnings *only when* the shares were issued.

Example: On 1, July, 2019 Magellan issued 300,000 ordinary shares at \$6 per share fully paid on that date. These shares are entitled to participate in **dividends** to the extent paid up.

Required: Determine the effect of the previous event on the **denominator** of BEPS at the year-ended 31, Dec, 2019.

Answer: $300,000 \text{ Shares} \times \frac{1}{2} \text{ Year} = 150,000 \text{ shares}$ added to the **denominator** of BEPS.

2. Partly paid ordinary shares are added to the **denominator** as fractional shares to the extent they carry rights during the year to participate in **dividends** in the same manner as fully paid shares.

Note: To the extent that partly paid shares are not entitled to participate in **dividends** during the period, they are treated as **share warrants** or **share options** and affect **DEPS** but not **BEPS** calculation.

Example: On 1, July, 2019 Fernando issued 800,000 ordinary shares at \$5 per share and \$2 paid on that date. These shares are entitled to participate in **dividends** to the extent paid up.

Required: Determine the effect of previous event on the **denominator** of BEPS at the year-ended 31, Dec, 2019.

Answer:

$\frac{800,000 \text{ Share} \times \$2}{\$5} \times \frac{1}{2} \text{ Year} = 160,000 \text{ shares}$ added to the **denominator** of BEPS.

3. Shares reacquired (treasury shares) are **deducted** from the **denominator** from the date of **acquisition** because cash paid to acquire these shares are no longer available to generate earnings.

Example: Dolly has a **profit** after tax of \$18.30m for the year-ended 31, Dec, 2019.

The following appropriations of **profit** have not been included in this amount:

1. \$4m arrears of **cumulative preference dividend** for two years-ended 31, Dec, 2019;
2. **Ordinary dividends** \$5m;
3. \$1m current year appropriation of **profits** related to **preference share premium** (payable on redemption);
4. **Exceptional profit** (net of tax) \$4.50m;

The following share transactions occurred during the year-ended 31, Dec, 2019.

Date	Description	Amount
1, Jan, 2019	Outstanding ordinary shares of \$1 par	3m
1, Jan, 2019	Ordinary shares issued for \$5 each, \$1 paid up to year-end. These shares entitled to participate in dividends to the extent paid up.	250,000
1, April, 2019	Ordinary shares issued at full market price of \$3 per share	600,000
1, July, 2019	Acquisition of its own ordinary shares at \$3.50 per share	400,000

Required: Calculate **BEPS** based on net profit of the year.

Answer:

Numerator	Amount
Profit after tax	\$18.30m
Add: Exceptional profit-net of tax	4.50m
Less: Preference share dividends of the current year <i>regardless</i> of declaration because preference shares are cumulative	(2m)
Less: Preference share premium appropriated from current year profit (payable on redemption)	(1m)
Profit available for ordinary shareholders	19.80m

Note: Ordinary dividends of \$5m are not deducted from numerator *when* calculating EPS.

Denominator	Number
Beginning balance of ordinary shares outstanding	3,000,000
Add: Partly paid ordinary shares issued on 1, Jan, 2019 $[(250,000/\$5) \times 1 \text{ year}]$	50,000
Add: Fully paid ordinary shares issued on 1, April, 2019 $(600,000 \times 9/12)$	450,000
Less: Treasury shares acquired on 1, July, 2019 $(400,000 \times 6/12)$	(200,000)
Weighted average number of ordinary shares	3,300,000

$$\text{BEPS} = \frac{\$19.80\text{m}}{3.30\text{m Share}} = \$6 \text{ per share.}$$

Continued: From the previous example assume Dolly had a **two-for-one share split** on 31, Dec, 2019 (two shares were awarded for every share held). Assume also 2018 reported **BEPS** were \$3.30.

Required: Show the effect on the **BEPS** calculated for the year-ended 31, Dec, 2019 *and* the previous year reported **BEPS**.

Answer: **Share split** is a type of share consolidations (see point 4 below) that has a **retroactive** effect on current year's **EPS** and a **retrospective** effect on comparative EPS of prior periods **presented**.

BEPS	
Retrospectively restated BEPS for 2018	Retroactively recalculated BEPS for 2019
$\frac{\$3.30}{3} = \1.10	$\frac{\$6}{3} = \2

Continued: If the share split had occurred on 1, Feb, 2020 before the approval of the F/S^s for issue.

Required: Show the effect on the **BEPS** calculated for the year-ended 31, Dec, 2019 and the previous year reported **BEPS**.

Answer: Share split and the other types of share consolidations are **adjusting events** as per IAS # 10 'Events after the reporting period' thus; the share split occurred on 1, Feb, 2020 would taken into account in **retroactive and retrospective** EPS calculations as shown above.

4. Share consolidations such as **share dividends, bonus issue, share split and a reverse split** all these events have **no impact** on the resources available for operations because they involve **no consideration** received or paid and they have **no effect** on the ownership percentage of **ordinary shares**:

A. Effect of share consolidations on EPS in the year it occurs:

The increase or decrease in the number of **shares outstanding** due to these events affect **denominator** for the **entire year or retroactively** from the date the related **ordinary shares** were issued during the year *even if* these events occur at the end of the period or occurred after the reporting period *but* before the F/S^s are authorised as these events are **adjusting events** as per IAS # 10 'Events after the reporting period'.

Example: Assume the following is related to the year-ended 31, Dec, 2019:

Numerator information		Denominator information	
Description	Amount	Description	Number
1. Profit from continuing operations	\$320,000	1. Ordinary shares outstanding, 1, Jan, 2019	100,000
2. Loss on discontinued operations-net of tax	(31,000)	2. Shares issued for cash on 1, April, 2019	20,000
3. After tax profit from continuing operations for the year	254,000	3. 10% share dividends declared on 1, July, 2019	12,000
4. 6% cumulative preference shares \$100 par 1,000 shares issued and outstanding	100,000	4. Treasury shares acquired on 1, Oct, 2019	10,000

Required: Calculate **BEPS**

Answer:

1. Preference share dividends are calculated based on par value of preference shares $(1,000 \times \$100 \times 6\%) = \$6,000$.
2. Current year preference share dividends are deducted from numerator *regardless of dividend declaration* because preference shares are **cumulative**.
3. Weighted average (W.A) number of ordinary shares is determined as follows:

Description	W.A
Beginning balance of ordinary shares outstanding	100,000
10% share dividends on beginning balance calculated as if declaration occurred from the beginning of the year $(100,000 \times 10\%)$	10,000
Shares issued for cash on 1, April, 2019 $(20,000 \times 9/12)$	15,000
10% share dividends on shares issued on 1, April, 2019 is included retroactively because share dividends are subsequent to share issuance. Calculated from the date shares were issued $(20,000 \times 10\% \times 9/12)$	1,500
Treasury shares acquired on 1, Oct, 2019 $(10,000 \times 3/12)$	(2,500)
Weighted average number of ordinary shares	124,000

BEPS calculation	Amount	Notes
BEPS based on profits from continuing operations $= \frac{\$254,000 - \$6,000}{124,000 \text{ Shares}}$	\$2 per share	Must be disclosed on the face of P/L.
BEPS on discontinued operations = $\frac{(\$31,000)}{124,000 \text{ Share}}$	(\$0.25) loss per share	Can <i>either</i> be disclosed on the face of P/L or notes to P/L.
BEPS on net profit = $\frac{\$254,000 - \$31,000 - \$6,000}{124,000 \text{ Share}}$	\$1.75 per share	Must be disclosed on the face of P/L.

Notes: If share issuances occurred in the mid-month; the weighted average number of shares would be based on the number of days elapsing between events.

B. Effect of share consolidations on EPS of the prior comparative years:

Share consolidation events are recognised **retrospectively** in comparative F/S^s where EPS for all prior periods presented **comparatively** to the current year should be **retrospectively restated** to reflect these events to avoid the erroneous impression of the change in EPS and enhances F/S^s users' ability to make proper evaluations and decisions.

Example: Assume the change in weighted average number of ordinary shares is *due to a bonus issue* announced on 1, July, 2019 of one new share for every five existing shares held.

Description	Year-ending 31, Dec	
	2018	2019
Profit attributable to the ordinary shareholders	\$460,000	\$550,000
Weighted average number of ordinary shares	1,000,000 Before bonus issue	1,200,000

Required:

A. Calculate **BEPS** for the year-ended 31, Dec, 2019;

B. Calculate the prior year's **comparative BEPS** figure.

Answer:

Bonus issue is a zero consideration received event that increases the number of **ordinary shares** *without* corresponding increase in profits. *Thus*; **bonus issue** always reduces EPS.

Although **bonus issue** is made in mid-2019 *but* its effect is considered for the **entire year** as follows:

Weighted average number of ordinary shares for 2018 is **retrospectively** calculated (1m shares × 6/5 = 1.20m shares).

Comparative BEPS		
Description	2018	2019
Profit attributable to the ordinary shareholders for the year	\$460,000	\$550,000
Weighted average number of ordinary shares	1,200,000 adjusted	1,200,000
BEPS	\$0.38	\$0.46
Note; Original BEPS as reported in 2018 was \$0.46. This per share amount could create erroneous impression <i>if not retrospectively adjusted</i> .	Retrospectively Restated	Bonus issue 1:5

5. Actual conversion of debt or preference shares into ordinary shares; the number of ordinary shares converted are added to the **denominator**, weighted from the date of conversion.

Example: In 1, Jan, 2019 Fantasia had in issue \$40,000; 15% convertible loan stock which is convertible to 4 ordinary shares for every \$5. These loan stocks were converted at 30, June, 2019.

Fantasia net profits for the year-ended 31, Dec, 2019 amounted to \$290,000. Fantasia had 100,000 ordinary shares held during the year of \$1 par value.

Required: Calculate **BEPS** for the year-ended 31, Dec, 2019.

Answer:

Weighted average number of ordinary shares related to converted loan stocks = $\frac{\$40,000}{\$5} \times 4 \times \frac{6}{12} = 16,000$ ordinary shares.

$$\text{BEPS} = \frac{\$290,000}{100,000 \text{ Share} + 16,000 \text{ Shares}} = \$2.50 \text{ per ordinary share.}$$

6. Ordinary shares issued during the period in connection with **business combination** are added to the **denominator** from the date of acquisition because the acquired entity's income and profits are also included from that date (numerator effect).

7. Contingently issuable ordinary shares; represent potential issuances of ordinary shares for little or no consideration and is dependent on the satisfaction of certain conditions set forth in a contingent share agreement such as achieving a certain level of profits or sales...etc.

Contingently issuable ordinary shares are included in the computation of **BEPS** when all the required conditions have been satisfied not from the beginning of the year (contrast this with the effect of contingently issuable ordinary shares on DEPS calculation).

2/4. The effect of share right offerings on BEPS

1. Share rights offerings are used to raise additional capital from existing shareholders through granting these share rights in proportion to the number of shares owned by each existing shareholder to purchase new shares at a strike (exercise) price below market price as an inducement to invest in new ordinary share issuance.

2. Share right offering is less costly than fees paid to brokers when floating new share issues.

3. Because the strike price is usually lower than F.V of the share; the right issue is equivalent to a **bonus issue**.

IAS # 33 requires an **adjustment** to the **denominator** of **BEPS** to reflect the **bonus element** inherent in it. This **adjustment** is only made in the year the rights are exercised.

Effect on the denominator of BEPS

A. Before share right exercising

Example (1): Meraco has 750,000 ordinary shares in issue at 1, Jan, 2019. At 1, Feb, 2019 Meraco announced one right issue for each 4 shares at a strike price of \$3 per share. The market value of the ordinary share on 1, Aug, 2019 immediately before the issue is exercised is \$4.25 (R_{em} value).

Assume the profits attributable to ordinary shareholders for 2018 and 2019 were \$278,906 and \$340,625 respectively.

Required: Calculate BEPS for the year-ended 31, Dec, 2019 and the effects on comparative 2018.

Steps to calculate the effect on BEPS denominator before right exercising:

1. Ex-right value of the ordinary share (theoretical value) =

$$\frac{(\text{Total F.V of share held just before right exercising} \rightarrow 4 \text{ Shares} \times \$4.25) + (\text{Total exercise price of rights given} \rightarrow 1 \text{ Share} \times \$3)}{\text{Total number of Shares after right exercise} \rightarrow (4+1)} = \$4.$$

2. Factor (bonus fraction) = $\frac{\text{F.V of a share Just before exercising } (R_{0n})}{\text{Theoretical value } (Ex_{right})} = \frac{\$4.25}{\$4}$

3. Bonus issue = [originally calculated BEPS denominator of WA number of ordinary shares $\times$ (factor - 1)]

$$= 750,000 \text{ shares} \times \left(\frac{\$4.25}{\$4} - 1 \right) = 46,875 \text{ shares.}$$

4. Bonus Effect on BEPS denominator before right exercising = Number of bonus shares 46,875

$$\text{shares} \times \text{fraction of the year the rights are outstanding} = \frac{\text{From 1, Feb to 1, August} \rightarrow 6 \text{ Months}}{12 \text{ Months}} = 23,438 \text{ shares.}$$

The resulting amount of shares are treated as if bonus issue before share right exercise and are added to the denominator of BEPS in the year these options are exercised.

Rule: No effect on the denominator of BEPS in the years where the stock rights are still outstanding and not yet exercised. The outstanding rights are viewed as written call option over the entity's shares which could have implications on DEPS but not BEPS.

From previous illustrative example:

$$1. \text{ The number of shares already exercised} = \frac{750,000 \text{ Share}}{4} = 187,500 \text{ shares.}$$

$$2. \text{ Apportioned number of shares already exercised} = 187,500 \text{ Shares} \times \frac{\text{From 1, Aug to 31, Dec} \rightarrow 5 \text{ Months}}{12 \text{ Months}} = 78,125 \text{ shares.}$$

Thus; **Denominator** of BEPS for the year-ended Dec, 31, 2019 = 750,000 + 23,438 + 78,125 = 851,563 shares

$$\text{BEPS for 2019} = \frac{\$340,625}{851,563 \text{ Shares}} = \$0.40 \text{ per share.}$$

C. Retrospective restatement for prior year

Multiply original BEPS by the reciprocal of the bonus factor.

$$\text{BEPS for 2018} = \frac{\$278,906}{750,000 \text{ Shares}} \times \frac{\$4}{\$4.25} = \$0.35 \text{ per share.}$$

Or; increase the denominator by the bonus factor.

$$\text{BEPS for 2018} = \frac{\$278,906}{750,000 \text{ Shares} \times \frac{\$4.25}{\$4}} = \$0.35 \text{ per share.}$$

Example (2): Copra net profits for the three years-ending Dec, 31 are as follows:

Year	2017	2018	2019
Net profit attributable to ordinary shares	\$1.10m	\$1.50m	\$1.80m

On 1, Jan, 2018 when the number of shares outstanding was 500,000 Copra announced a rights issue with the following details:

One right of new share for each 5 outstanding.

Exercise price: \$5;

Last date to exercise rights: 1, March, 2018.

The market value of one share immediately prior to exercise on 1, March, 2018 = \$11.

Required: Calculate BEPS for 2017, 2018 and 2019

Answer:

Effect on BEPS denominator for 2018:

1. Ex-right value of the ordinary share (theoretical value) =

$$\frac{(\text{Total F.V of share held just before right exercising}) + (\text{Total exercise price of rights given})}{\text{Total number of Shares after right exercise}} = \$10.$$

$$2. \text{ Factor (bonus fraction)} = \frac{\text{F.V of a share Just before exercising (R}_{\text{Old}})}{\text{Theoretical value (Ex}_{\text{Right}})} = 1.10.$$

3. Bonus issue = [originally calculated BEPS denominator of WA number of ordinary shares 500,000 shares × (factor 1.10 - 1)] = 50,000 shares.

4. Bonus effect on BEPS denominator before right exercising = number of bonus shares 50,000 shares × fraction of the year the rights are outstanding 2/12 = 8,333 shares.

$$5. \text{ The number of shares already exercised} = \frac{500,000 \text{ Share}}{5} = 100,000 \text{ shares.}$$

$$6. \text{ Apportioned number of shares already exercised} = 100,000 \text{ Shares} \times \frac{10 \text{ Months}}{12 \text{ Months}} = 83,333 \text{ shares.}$$

Thus; **Denominator** of BEPS for the year ended Dec, 31, 2018 = 500,000 + 8,333 + 83,333 = 591,666 shares.

BEPS calculation:

Description	Comparative BEPS		2019
	2017	2018	
Net profit	\$1,100,000	\$1,500,000	\$1,800,000
WA number of shares	$500,000 \times 1.10 = 550,000$	591,667 shares	$500,000 + 100,000 = 600,000$
BEPS	\$2	\$2.54	\$3
Notes	Retrospectively restated	Year of right exercise	Years after rights exercised

Notes:

A. The **retrospectively restated** BEPS could be found simply by multiplying original BEPS by the reciprocal of the factor

$$= \frac{\$1,100,000}{500,000} \times \frac{\$10}{\$11} = \$2 \text{ per share.}$$

B. WA number of shares for 2019 = $500,000 \text{ shares} \times \frac{6}{5} = 600,000 \text{ shares.}$

Example (3): The issued share capital of Lego a publicly listed entity at 31, March, 2018 was \$10m. Its shares are denominated at 25 cents each. Lego's profits attributable to its **ordinary shareholders** for the year-ended 31, March, 2018 were also \$12m giving EPS of 30 cents.

On 1, July, 2018 Lego issued 8m **ordinary shares** at full market value. On 1, Jan, 2019 a **bonus issue** of one new **ordinary share** for every **four ordinary shares** held was made. Profits attributable to **ordinary shareholders** for the year-ended 31, March, 2019 were \$14.375m.

On 1, April, 2019 Lego offered rights issue of two new **ordinary shares** at a price of \$1 each for every five **ordinary shares** held. The offer was **fully subscribed** on 1, Oct, 2019. The market price of Lego's **ordinary shares** immediately prior to the offer was \$2.40 each. Profits attributable to **ordinary shareholders** for the year-ended 31, March, 2020 were \$19.50m.

Required: Calculate Lego's BEPS for the years-ended 31, March, 2019 and 2020 including comparative figures.

Answer:

1. Denominator of BEPS for the year-ended 31, March, 2019:

Description	WA number of ordinary shares
Ordinary shares-beginning balance (\$10m/\$0.25)	40m
W.A of ordinary shares issued at F.V on 1, July, 2018 (8m shares $\times$ 9/12)	6m
Bonus issue relating to Beg balance of ordinary shares-from beginning of the year (40m/4)	10m
Bonus issue relating to ordinary shares issued on 1, July, 2018 $[(8m/4) \times (9/12)]$	1.50m
WA number of ordinary shares for the year-ended 31, March, 2019	57.50m

2. BEPS for the year-ended 31, March, 2019 = $\frac{\$14.375m}{57.50m \text{ Share}} = \0.25 per share.

3. BEPS for 2018 would be **restated** to allow for the dilutive effect of the **bonus** issue as follows:

Description	2018	2019
Profit attributable to the ordinary shareholders for the year-ending 31, March	\$12m	\$14.375m
W.A number of ordinary shares in issue at 31, March	40m × 5/4 = 50m	57.50m
EPS for the year-ended 31, March	\$0.24	\$0.25

4. Number of shares outstanding at 1, April, 2019 = [(40m shares + 8m shares issued) × bonus issue 5/4] = 60m shares.

5. **Denominator** of BEPS for the year-ended 31, March, 2020:

A. **Ex-right value** of the ordinary share (theoretical value) =

$$\frac{(\text{Total F.V of share held just before right exercising } 5 \text{ shares} \times \$2.40) + (\text{Total exercise price of rights given } 2 \text{ shares} \times \$1)}{\text{Total number of Shares after right exercise } 5 + 2} = \$2.$$

B. **Factor (bonus fraction)** = $\frac{\text{F.V of a share Just before exercising } \$2.40 (R_{on})}{\text{Theoretical value } \$2 (Ex_{right})} = 1.20.$

C. **Bonus issue** = [originally calculated **BEPS denominator** of WA number of **ordinary shares** 60m × (factor 1.20 - 1)] = 12m shares.

D. **Bonus on BEPS denominator** before right exercising = number of bonus shares 12m shares × fraction of the year the rights are outstanding 6/12 = 6m shares.

E. The number of shares already **exercised** = $\frac{60m \text{ shares}}{5} \times 2 = 24m \text{ shares.}$

F. Apportioned number of shares already **exercised** = 24m Shares × $\frac{6 \text{ Months}}{12 \text{ Months}} = 12m \text{ shares.}$

Thus; **Denominator** of BEPS for the year-ended 31, March, 2020 = 60m + 6m + 12m = 78m shares

BEPS calculation:

Description	Comparative BEPS	
	2019	2020
Profit attributable to the ordinary shareholders	\$14.375m	\$19.50m
WA number of shares	57.50m × factor 1.20 = 69m	78m shares
BEPS	\$0.21	\$0.25
Notes	Retrospectively restated	Year of right exercise

Notes: The **retrospectively restated** BEPS could be found simply by multiplying original BEPS by the reciprocal of the

$$\text{factor} = \$0.25 \times \frac{\$2}{\$2.40} = \$0.21.$$

3/1. Concepts and definitions

1. **Complex capital structure** is one that has **dilutive potential ordinary shares** which are shares *or* other instruments *such as* convertible **debt or share options** that have the potential to be **converted or exercised** and thereby reducing EPS ('watering down' of equity).
2. The effect of any individual **anti-dilutive potential ordinary share** is not included in the **computation** of **DEPS**. *Thus*, **DEPS** can never provide a more favorable impression of financial performance than does the **BEPS**.
3. **DEPS** is the amount of **net profit** for the period per **share** reflecting the **maximum dilutions** that would have resulted from **conversions, exercises** and other contingent issuances that **individually** would have decreased EPS and in the aggregate would have had a **dilutive effect**. *Thus*, the **DEPS** effectively acts as a **warning** to the existing **ordinary shareholders**.
4. Complex capital structure requires dual **presentation** of both **BEPS and DEPS** (*even when* the **BEPS** is a **loss** per share) *unless* **DEPS** would be **anti-dilutive**.
5. For the purposes of **calculating DEPS** both **numerator and denominator** should be adjusted to remove the effects of the **dilutive potential ordinary shares**.
6. The profit figure (numerator) used as the '**control number**' in **calculating whether potential ordinary shares** are dilutive is **net profit from continuing operations**.
7. **DEPS computation** assumes the most advantageous **conversion rate or exercise rate** from the standpoint of the holder of the **potential ordinary shares**.
8. **DEPS calculation** is forward looking *whereas* **BEPS** could be said to be backward looking. **DEPS** is not a forecast of future EPS it is the **current BEPS** adjusted for a future capital base changes that may *or* may not occur.

3/2. Determining **dilution** effects on numerator *and* denominator

B/1. **Convertible instruments**

Assumed conversion method 'if converted method'

Example (1): Target has made a net profit from continuing operations attributable to ordinary shareholders of \$2.50m for the year-ended 31, Dec, 2019.

Target has 10m ordinary shares outstanding for the entire year.

Since Jan, 2018 there has been \$900,000 of 10% convertible loan to ordinary share.

The terms of conversion are for every \$100 nominal value of convertible loan as follows:

If conversion occurred on 30, June 2019: 120 ordinary shares;

If conversion occurred on 30, June 2020: 150 ordinary shares;

If conversion occurred on 30, June 2021: 140 ordinary shares;

Assume tax rate is 30% and no conversion takes place in the year.

Required: Calculate BEPS and DEPS

Answer:

$$1. \text{ BEPS} = \frac{\$2.50\text{m}}{10\text{m Share}} = \$0.25.$$

2. **DEPS:**

A. **Denominator** effect:

Rule: The conversion rate or exercise price should reflect the most favorable rate or price to the potential ordinary shareholder.

Thus, W.A number of ordinary shares under assumed conversion method (if converted method) would increase by $\frac{\$900,000}{\$100} \times 150 \text{ ordinary shares} = 1.35\text{m equivalent ordinary shares}.$

B. Numerator effect:

If the convertible loan is converted from the beginning of the year (or from its issuance date (if later) then; the entity would avoid finance cost on it which increases net profit by an amount = finance cost avoided $\times$ (1 - tax rate).

Increase in net profit due to avoidable finance cost (net of tax) = $\$900,000 \times 10\% \times (1 - 0.30) = \$63,000.$

$$\text{DEPS} = \frac{\$2,500,000 + \$63,000}{10,000,000 \text{ Share} + 1,350,000 \text{ Shares}} = \$0.226.$$

DEPS would be presented because it is actually dilutive.

Note: Finance cost considered should include any discount or premium amortisation (if any).

Summary:

Description	Numerator \$	Denominator (shares)	EPS	Effect
BEPS	\$2,500,000	10,000,000	\$0.25	
Convertible loan effect	63,000	1,350,000		
DEPS	\$2,563,000	11,350,000	\$0.226	Dilutive
Dilution per share			\$0.024	

Continued: From the above example assume that; one quarter of the issued convertible loan is converted at 30, June, 2019.

Required: Determine the effect on BEPS and DEPS.

Answer:

1. The denominator of BEPS will increase by the W.A actual number of ordinary shares converted as follows:

$$\frac{\$900,000}{\$100} \times 120 \text{ ordinary shares} \times 25\% \text{ converted} \times 6/12 \text{ months after conversion} = 135,000 \text{ equivalent ordinary shares.}$$

2. The conversion of 25% of convertible debt will save half year interest as follows:

$$\$900,000 \times 10\% \times 25\% \text{ converted} \times 6/12 \text{ months} \times (1 - 0.30) = \$7,875.$$

$$\text{BEPS} = \frac{\$2,500,000 + \$7,875}{10,000,000 \text{ Share} + 135,000 \text{ Shares}} = \frac{\$2,507,875}{10,135,000 \text{ Share}} = \$0.247.$$

DEPS:

1. Denominator effect:

$$\text{Dilutive effect for the remaining unconverted portion based on most favorable rate} = \frac{\$900,000}{\$100} \times 150 \text{ ordinary shares} \times$$

$$75\% = 1,012,500 \text{ equivalent ordinary shares.}$$

Thus, W.A number of ordinary shares under assumed conversion method (if converted method) would increase by 1,012,500 equivalent ordinary shares.

2. Numerator effect:

$$\text{Increase in net profit due to avoidable finance cost (net of tax)} = [(\$900,000 \times 75\% \times 10\% \times (1 - 0.30))] = \$47,250.$$

$$\text{DEPS} = \frac{\$2,507,875 + \$47,250}{10,135,000 \text{ Share} + 1,012,500} = \frac{\$2,555,125}{11,147,500 \text{ Share}} = \$0.229.$$

DEPS would be presented because it is actually dilutive.

Description	Numerator \$	Denominator (shares)	EPS	Effect
BEPS	\$2,507,875	10,135,000	\$0.247	
Convertible loan effect	47,250	1,012,500		
DEPS	\$2,555,125	11,147,500	\$0.229	Dilutive

Conclusion: *If potential shares are partially or totally exercised during the period; then for that part of the year after exercising the actual shares outstanding are included for purposes of determining BEPS and the potential shares are used in the determination of DEPS for only that portion of the year before the exercise occurred.*

Example (2): Jasmine issued 4m convertible bonds at 1, Jan, 2019. The bonds mature in three years and are issued at their face value of \$10. The bonds attract interest in arrears. Each bond can be converted into 2.5 ordinary shares. Jasmine can settle the principal amount of the bonds in ordinary shares or in cash.

When the bonds were issued the interest rate for a similar debt without the conversion rights is 10%. At the issue date the market price of an ordinary share is \$4. Jasmine is likely to settle the contract by issuing shares.

- Profit attributable to ordinary shareholders at 31, Dec, 2019 amounted to \$40m.

- Ordinary shares outstanding 10m.

Allocation of proceeds of bond:

Liability \$30m

Equity \$10m

Total \$40m

Required: Calculate BEPS and DEPS for the year to 31, Dec, 2019 assuming tax effects are ignored.

Answer: The issued convertible bond is a compound (hybrid) financial instrument as per IAS # 32 'Financial instruments-Presentation'. Accordingly the initial liability is \$30m.

Dr: Cash \$40m

Cr: Bonds payable \$30m

Cr: Option to acquire ordinary shares \$10m → equity

$$1. \text{BEPS} = \frac{\$40\text{m}}{10\text{m Share}} = \$4.$$

$$2. \text{DEPS} = \frac{[\$40\text{m} + (\$30\text{m} \times 10\%)]}{[10\text{m Share} + (4\text{m Bond} \times 2.50 \text{ ordinary Shares})]} = \$2.15.$$

DEPS would be presented because it is actually dilutive.

Example (3): Assume the following for Castillo:

Description	Amount
Operating profit	\$65,714
Finance cost on 5,000 convertible debentures outstanding*	(30,000)
Profit before tax	35,714
Tax (30%)	(10,714)
After tax profit	25,000
Employee profit sharing contribution (40%)	(10,000)
Net profit available to ordinary shareholders	15,000
W.A number of ordinary shares outstanding	10,000 shares
BEPS	\$1.50
*Conversion rate is 20 : 1	

Required: Calculate DEPS under 'if converted method'.

Answer:

A. DEPS assumes that the debentures were converted at the beginning of the year, thereby after tax effect of finance cost that will be added to the numerator = $\$30,000 \times 70\% = \$21,000$.

B. If debentures were converted; the employee profit sharing would have increased by $\$21,000 \times 40\% = \$8,400$.

Thus, DEPS numerator would equal to $\$15,000 + \$21,000 - \$8,400 = \$27,600$.

C. Denominator would be increased by assumed conversion of 5,000 bonds $\times 20$ ordinary share = 100,000 ordinary shares.

$$\text{D. DEPS} = \frac{\$27,600}{10,000 \text{ Share} + 100,000 \text{ Shares}} = \$0.251$$

Since this is truly dilutive; IAS # 33 requires disclosure of DEPS on the face of P/L.

Continued: From the above case, if the conversion rate is 1: 1 then;

$$\text{DEPS} = \frac{\$27,600}{10,000 \text{ Share} + 5,000 \text{ Shares}} = \$1.84$$

Since this is anti-dilutive only BEPS would be disclosed.

Example (4): Assume net profit for the year of \$100,000 and W.A number of ordinary shares outstanding of 10,000.

The following information is provided regarding the capital structure:

1. 5% convertible cumulative preferred shares par \$100; 1,000 shares issued and outstanding. Each preferred share is convertible into 2 ordinary shares. The preference shares were issued at par and were outstanding the entire year. No shares were converted during the year.

2. Convertible debt 8% of 200 bonds each convertible into 40 ordinary shares. The bonds were issued at par \$1,000 per bond. The bonds were outstanding the entire year. The income tax rate is 40%. No bonds were converted during the year.

Required: Calculate DEPS under *if converted* method.

Answer:

$$1. \text{BEPS} = \frac{\$100,000 - \text{Preferred dividends on convertible preference shares } (1,000 \times \$100 \times 5\%)}{10,000 \text{ Share}} = \$9.50.$$

2. The DEPS must be less than BEPS for **dual** presentation.

To ascertain *whether* the effect would be dilutive *or* anti-dilutive each potential ordinary share issue must be evaluated separately.

3. *If converted method* assumes conversion of convertible potential ordinary share instruments from beginning of the year *or* the date of its issuance (if issued later during the year).

Description	Numerator \$	Denominator (Shares)	EPS	Effect
BEPS	\$95,000	10,000	\$9.50	
Effects of convertible preferred shares*	5,000	2,000		
Total	100,000	12,000	8.33	Dilutive
Effects of convertible debt **	9,600	8,000		
DEPS	109,600	20,000	5.48	Dilutive

*Determining the dilutive effect of the preference shares:

Numerator effect: Avoidance of preferred dividends of 1,000 shares $\times \$100 \times 5\% = \$5,000$ (added).

Denominator effect: Conversion to 1,000 preferred shares $\times 2 = 2,000$ ordinary shares (added).

**Determining the dilutive effect of the convertible bonds:

Numerator effect: Avoidance of finance cost = 200 bonds $\times \$1,000 \times 8\% \times (1 - 0.40 \text{ tax rate}) = \$9,600$ (added).

Denominator effect: Conversion to 200 bonds $\times 40 = 8,000$ ordinary shares (added).

Accordingly, a dual presentation of EPS is required.

B/2. Rights issue 'Options and warrants'

Under 'Treasury share method'

B/2/1: Effects of rights granted on DEPS

1. Entities may issue share options *and* share warrants that give existing shareholders the right to purchase ordinary shares at below market price.

2. The actual **exercise** of options *and* warrants affects BEPS calculation because the actual proceeds enhance the entity's profit (numerator effect) *and* increase the number of ordinary shares (**denominator** effect).

3. **Granting** share options *and* warrants affect DEPS computation *even* in the years *where* these options *and* warrants unexercised *and* no actual resources were received, no enhancement of earnings *and* no ordinary shares actually issued.

4. Under 'treasury share method' the **hypothetical proceeds** from the **presumed exercises** of options *and* warrants are assumed to be used to repurchase outstanding ordinary shares, at the **average** prevailing market price during the reporting period.

Example (1): The accounting data for the year-ended 30, Sep, 2020 of Wallace, a public entity as follows:

Net profit attributable to ordinary shareholders \$8m;

W.A number of ordinary shares 4m share;

Average F.V for year of ordinary shares \$1.50.

On 1, Oct, 2019; 2m share options have been granted to directors giving them the right to subscribe for ordinary shares between the granting date and 2023 at \$1.20 per share, these options still outstanding at 30, Sep, 2020.

Required: Calculate the BEPS and DEPS

Answer:

1. BEPS calculation:

A. No adjustment to the denominator of BEPS for share options because it was not exercised during the year.

$$\text{BEPS} = \frac{\$8\text{m}}{4\text{m Shares}} = \$2 \text{ per share.}$$

B. DEPS calculation:

DEPS denominator is adjustment for share options under treasury share method as follows:

Number of bonus shares as a result of lower exercise price than average F.V = 2m shares Minus

$$\frac{\text{Hypothetical proceeds from presumed exercises} \rightarrow (\text{Strike Price } \$1.20 \times 2,000,000 \text{ Shares})}{\text{Average Share Price } \$1.50} = 400,000 \text{ shares.}$$

These shares are assumed to be issued for no consideration (free issued) thus; it is added to DEPS denominator and treated as an issue of ordinary shares for no consideration.

Notes:

A. The bonus shares are apportioned to the time it takes before exercising.

B. The bonus shares effect on DEPS is always dilutive as long as option exercise price is lower than the average market price.

$$\text{DEPS} = \frac{\$8\text{m}}{4\text{m Shares} + 0.40\text{m Share}} = \$1.82 \text{ per share.}$$

5. If options are exercised during the year, time is apportioned.

Continued: Assume from the example above that, the share options are exercised three months before year-end.

Required: Calculate the effect on the W.A number of ordinary shares under DEPS.

Answer: The W.A number of ordinary shares under DEPS calculation would be increased as follows:

$$[(400,000 \text{ Shares} \times \frac{9}{12}) + (2,000,000 \text{ Shares} \times \frac{3}{12})] = 800,000 \text{ shares.}$$

Example (2): The accounting data for the year-ended 31, May, 2020 of Wood a public entity as follows:

Net profit after tax and NCI \$20m;

W.A number of ordinary shares 40m share;

Average F.V for year of ordinary shares \$1.50.

Wood's relevant transactions were as follows:

1. Share options have been granted to directors giving them the right to subscribe for ordinary shares between 2021 and 2023 at \$1.20 per share. The outstanding options at 31, May, 2020 were 2m.

2. Wood has \$20m of 8% convertible bonds in issue. The terms of conversion of the bonds per \$100 nominal value of bond at the date of issue (1, June, 2019) were as follows:

Conversion date	Number of shares
31, May, 2020	26
31, May, 2021	25
31, May, 2022	23

None of the bonds have as yet been converted. The bonds have been issued at a discount of 1% and the entity has written off the discount against the statement of P/L.

3. There are 1.60m convertible preference shares in issue. Cumulative dividend is 10 cents per share and each preferred share is convertible into one ordinary share in 2021.

4. Assume a tax rate of 25%.

Required:

A. Calculate the BEPS and DEPS

Answer:

1. BEPS calculation:

A. No adjustment to the denominator of BEPS for share options because it was not exercised during the year.

B. The discount of \$200,000 ($\$20,000,000 \times 1\%$) that allocated to P/L during the current year is added back to the profit attributable to ordinary shareholders because bonds are accounted for at amortised cost.

Note: The \$200,000 is totally added to numerator because it is not deductible expense for tax purposes but rather it should be amortised to finance cost over the bond term.

C. Preference share dividends (1,600,000 shares $\times$ \$0.10) are deducted regardless of declaration because the related preference shares are cumulative.

$$\text{BEPS} = \frac{\$20,000,000 - 160,000 + \$200,000}{40,000,000 \text{ Shares}} = \$0.501 \text{ per share.}$$

B. DEPS calculation

Order testing for anti-dilutive effects:

1. DEPS denominator is adjustment for share options under treasury share method as follows:

Number of bonus shares as a result of lower exercise price than average F.V = 2m shares Minus

$$\frac{\text{Hypothetical proceeds from presumed exercises} \rightarrow (\text{Strike Price } \$1.20 \times 2,000,000 \text{ Shares})}{\text{Average Share Price } \$1.50} = 400,000 \text{ shares.}$$

These shares are assumed to be issued for no consideration (free issued). Thus, it is added to DEPS denominator and treated as an issue of ordinary shares for no consideration.

Notes:

A. The bonus shares are apportioned to the time it takes before exercising.

B. The bonus shares effect on DEPS is always dilutive as long as option exercise price is lower than the average market price.

2. Convertible preferred shares:

A. Numerator adjustment = Add preferred dividends because it will be avoided under if converted method.

B. Denominator adjustment = $1.60\text{m} \times 1 = 1.60\text{m}$ ordinary shares (added).

3. Convertible bonds:

A. Numerator adjustment for convertible bond = $\$20\text{m} \times 8\% \times 75\% = \1.20m .

B. Denominator adjustment for convertible bond = $\frac{\$20,000,000}{\$100} \times 25 \text{ Shares} = 5\text{m share}$.

Description	Numerator \$	Denominator-shares	EPS	Effect
BEPS	20,040,000	40,000,000	50.10C	
Share options (1)	0	400,000		
Total	20,040,000	40,400,000	49.60C↓	Dilutive
Convertible preferred shares (2)	160,000	1,600,000		
Total	20,200,000	42,000,000	48.10C↓	Dilutive
Convertible bonds (3)	1,200,000	5,000,000		
Total	21,400,000	47,000,000	45.53 C	Dilutive
DEPS	21,400,000	47,000,000	45.53 C	

Example (3): Below are extracts from the F/S^s of Sphinx for the year to 31, March, 2020:

Statement of P/L			
Description	Continuing operations	Discontinuing operations	Total
Profit (loss) before tax	\$2,250	(\$375)	\$1,875
Tax (charge) relief (20%)	(450)	75	(375)
Profit (loss) from the ordinary activities	1,800	(300)	1,500
(loss) from exceptional items-net of tax (not included above)			(100)
Net profit			1,400

SFP	
Description	Amount
Equity	
Ordinary shares (25 cents each)	\$2,000
8% Non-redeemable preference shares	800
10% Convertible preference shares \$1 each *	1,000
Non-current liabilities	
10% Convertible loan stock **	1,200

Notes: All shares and loan stocks were in issue prior to the beginning of the current year.

* The 10% convertible preference shares are convertible to ordinary shares on the basis of three ordinary shares for every five preference shares on 31, March, 2022 at the option of the preference shareholders.

** The 10% convertible loan stock is redeemable on 31, March, 2022 or can be converted to ordinary shares on the basis of 120 ordinary shares for each \$100 of loan stock at the holders' option.

-There are also in issue 5,000 ordinary share options. These were issued to directors on 1, April, 2019 and are exercisable on 31, March, 2022 at a price of \$1.20 per share. Sphinx average market share price is \$2.

Interest on loan stock is an allowable expense for tax deduction.

Preference dividends are paid out of taxed profits.

Required: Calculate BEPS and DEPS for the year-ended 31, March, 2020.

Answer:

$$\text{Number of ordinary shares} = \frac{\$2,000}{\$0.25} = 8,000 \text{ shares.}$$

Preference share dividends on non-redeemable preference shares = $\$800 \times 8\% = \64 .

Preference share dividends on Convertible preference shares = $\$1,000 \times 10\% = \100 .

1. BEPS calculation:

$$\text{A. BEPS based on net profit} = \frac{\$1,400 - \$64 - \$100}{8,000 \text{ Shares}} = 15.45 \text{ C per share.}$$

$$\text{B. BEPS based on profit from continuing operations, as a controlling number for DEPS calculation} = \frac{\$1,800 - \$64 - \$100}{8,000 \text{ Shares}} = 20.45 \text{ C per share.}$$

2. DEPS calculation (based on continuing activities only):

In order to determine if a potential conversion is dilutive; each potential ordinary share equivalent has to be ranked in order of its dilutive effect as follows:

A. The effect of share options under treasury share method is as follows:

Number of bonus shares as a result of lower exercise price than average F.V = 5,000 shares Minus

$$\frac{\text{Hypothetical proceeds from presumed exercises} \rightarrow (\text{Strike Price } \$1.20 \times 5,000 \text{ Shares})}{\text{Average share price } \$2} = 2,000 \text{ shares.}$$

These **shares** are assumed to be issued for **no consideration** (free issued). *Thus*, it is added to **DEPS denominator** and treated as an issue of **ordinary shares** for **no consideration**.

Note: The **bonus shares** effect on **DEPS** is always **dilutive** as long as **option** exercise price is lower than the **average** market price.

B. Convertible loan stock:

Numerator effect = \$1,200 × 10% × 80% = \$96 (added).

Denominator effect = $\frac{\$1,200}{\$100} \times 120 \text{ Shares} = 1,440$ common share equivalent (CSE).

C. 10% Convertible preference shares:

Numerator effect = \$1,000 × 10% = \$100.

Denominator effect (CSE) = $\frac{1,000 \text{ Preferred shares}}{5 \text{ Preferred shares}} \times 3 \text{ ordinary shares} = 600 \text{ shares}$.

DEPS-From ordinary activities only				
Description	Numerator \$	Denominator (Shares)	EPS	Effect
BEPS-based on continuing activities	\$1,636	8,000	20.45 C	
Director's share options (A)	0	2,000		
Total	1,636	10,000	16.36 C	Dilutive
Convertible loan stock (B)	96	1,440		
Total	1,732	11,440	15.14 C	Dilutive
10% Convertible preference shares (C)	100	600		
Total	1,832	12,040	15.22 C	Ant-dilutive

Thus, $\text{DEPS} = \frac{\$1,732}{11,440 \text{ Shares}} = 15.14 \text{ C}$.

Sequencing of dilution effects:

The goal in **computing DEPS** is to calculate the maximum **dilutive** effect. The **dilutive** instruments should be dealt with from the **most dilutive** to the **least dilutive** *thus*; **options and warrants** should be dealt with first, since these will not affect the **numerator** of the **EPS** *thus*; it has the most **dilutive** impact. **Convertible securities** are dealt with subsequently, and no assumptions of **conversion** should be made if the effect would be **anti-dilutive**.

Note: To determine the sequencing of the **dilution** analysis, a 'trial and error' approach is used.

3. DEPS calculation based on net profits:

Description	Numerator	Denominator	DEPS
DEPS based on continuing operations	\$1,732	11,440	15.14 C
Less: Net loss from exceptional items and discontinued operations	(400)	11,440	(3.59 C)
DEPS	1,332	11,440	11.64 C

B/2/2: Effects of rights exercised on DEPS V.S BEPS

When rights granted are exercised during the year, it will affect differently BEPS and DEPS before being exercised as follows:

Description	Effect on the denominator of BEPS	Effect on the denominator of DEPS
Before exercising	Use the bonus factor to calculate the W.A number of bonus shares and apportion this number to time period fraction before exercising.	Use the hypothetical proceeds under the treasury share method and apportion this number to time period fraction before exercising.
After exercising	Calculate the W.A number of shares that actually exercised and apportion this number to time period fraction after exercising.	

Example (1): A statement showing the R.E^s of Karma for the year-ended 31, Dec, 2019 is set out below:

Description	Subtotal	Total
Profit before tax		\$5,000,000
Less: Income tax expense (25%)		(1,250,000)
Net profit		3,750,000
Transfer to reserves		(250,000)
Dividends		
Paid preference interim dividend	\$120,000	
Paid ordinary interim dividend	250,000	
Declared preference final dividend	130,000	
Total dividends		(500,000)
Retained profit		3,000,000

On 1, Jan, 2019 the issued share capital of Karma was 2.50m at 6% preference shares of \$1 each and 4m ordinary shares of \$1 each.

Karma made a rights issue of \$1 ordinary shares on 1, Oct, 2019 in the proportion of 1 for every 5 shares held at a price of \$1.20. The market price for the shares at close of trade on the last day of quotation was \$1.80 per share.

Assume average share price \$1.92.

Required: Calculate **BEPS** and **DEPS** for the year-ended 31, Dec, 2019.

Answer:

BEPS calculation:

A. Ex-right value of the ordinary share (theoretical value) =

$$\frac{(\text{Total F.V of share held just before right exercising } 5 \text{ shares} \times \$1.80) + (\text{Total exercise price of rights given } 1 \text{ share} \times \$1.20)}{\text{Total number of Shares after right exercise } (5+1)} = \$1.70.$$

$$\text{B. Factor (bonus fraction)} = \frac{\text{F.V of a share Just before exercising (R}_{\text{or}}) = \$1.80}{\text{Theoretical value (Ex}_{\text{right}}) = \$1.70}.$$

$$\text{C. Bonus issue} = [\text{originally calculated BEPS denominator of WA number of ordinary shares } 4\text{m} \times (\text{factor } \frac{\$1.80}{\$1.70} - 1)] = 235,294 \text{ shares.}$$

D. Bonus on BEPS denominator before right exercising = number of bonus shares 235,294 shares $\times$ fraction of the year the rights are outstanding $9/12 = 176,470$ shares.

$$\text{E. The number of shares already exercised} = \frac{4\text{m shares}}{5} = 0.80\text{m shares.}$$

$$\text{F. Apportioned number of shares already exercised} = 800,000 \text{ Shares} \times \frac{3 \text{ Months}}{12 \text{ Months}} = 200,000 \text{ shares.}$$

Thus; **denominator of BEPS** for the year ended 31, Dec, 2019 = $4\text{m} + 176,470 + 200,000 = 4,376,470$ shares.

$$\text{BEPS} = \frac{\$3,750,000 - \$120,000 - \$130,000}{4,376,470 \text{ Shares}} = \$0.80.$$

DEPS calculation:

1. The effect of share options under treasury share method is as follows:

Number of bonus shares as a result of lower exercise price than average F.V = 800,000 shares Minus

$$\frac{\text{Hypothetical proceeds from presumed exercises} \rightarrow (\text{Strike Price } \$1.20 \times 800,000 \text{ Shares})}{\text{Average Share Price } \$1.92} = 300,000 \text{ shares.}$$

These shares are assumed to be issued for no consideration (free issued).

$$\text{Number of bonus shares added to DEPS before options are exercised} = 300,000 \text{ shares} \times \frac{9}{12} = 225,000 \text{ shares.}$$

2. After right exercise W. A number of ordinary shares will increase by $800,000 \text{ shares} \times \frac{3}{12} = 200,000 \text{ shares.}$

$$\text{DEPS} = \frac{\$3,750,000 - \$120,000 - \$130,000}{4,000,000 \text{ Shares} + 225,000 \text{ Shares} + 200,000 \text{ Shares}} = \$0.79.$$

Note: the 176,470 shares at the **denominator** of **BEPS** are replaced by 225,000 shares at the **denominator** of **DEPS** to avoid double dilution.

Example (2): Frankfort is a listed entity that made a profit after tax of \$42m for the year-ended 30, Sep, 2020. There were no discontinued operations. At 1, Oct, 2019 Frankfort had 60m ordinary shares and 20m preference shares in issue. The preference shares were correctly presented in equity within the SFP. In the year-ended 30, Sep, 2020 Frankfort declared and paid a dividend of 20 cents per share to the ordinary shareholders and 10 cents per share to the preferred shareholders. On 31, Dec, 2019 Frankfort made a fully subscribed rights issue of two ordinary shares for every six held at \$1.50 per share. The F.V of an ordinary share at 31, Dec, 2019 was \$1.80. Throughout the financial year Frankfort had 20m convertible loan notes on which interest of 6 cents per note was payable annually in arrears. The carrying amount of the liability element of the loan note at 1, Oct, 2019 was \$23m and the effective rate of interest was 8%. Income tax rate is 20%. The notes are convertible into ordinary shares from 1, Oct, 2022 at the option of the note-holder. The conversion terms are one ordinary share for every loan note held.

Required: Compute the BEPS and DEPS for the year-ended 30, Sep, 2020.

Answer:

BEPS calculation:

1. Preferred dividends declared and paid = $20\text{m} \times \$0.10 = \2m .

2. Denominator adjustment for rights issue:

A. Ex-right value of the ordinary share (theoretical value) =

$$\frac{(\text{Total F.V of share held just before right exercising } 6 \text{ shares} \times \$1.80) + (\text{Total exercise price of rights given } 2 \text{ shares} \times \$1.50)}{\text{Total number of Shares after right exercise } (6 + 2)} = \$1.725.$$

$$\text{B. Factor (bonus fraction)} = \frac{\text{F.V of a share Just before exercising } (R_{\text{old}})}{\text{Theoretical value } (Ex_{\text{right}})} = \frac{\$1.80}{\$1.725}.$$

$$\text{C. Bonus issue} = [\text{originally calculated BEPS denominator of WA number of ordinary shares } 60\text{m} \times (\text{factor } \frac{\$1.80}{\$1.725} - 1)] = 2,608,696 \text{ shares}.$$

D. Bonus on BEPS denominator before right exercising = number of bonus shares 2,608,696 shares $\times$ fraction of the year the rights are outstanding $\frac{3}{12} = 652,174$ shares.

$$\text{E. The number of shares already exercised} = \frac{60\text{m shares}}{6} \times 2 = 20\text{m shares}.$$

$$\text{F. Apportioned number of shares already exercised} = 20\text{m Shares} \times \frac{9 \text{ Months}}{12 \text{ Months}} = 15\text{m shares}.$$

Thus; Denominator of BEPS for the year ended 30, Sep, 2020 = $60\text{m} + 652,174 + 15\text{m} = 75,652,174$ shares.

$$\text{BEPS} = \frac{\$42,000,000 - \$2,000,000}{75,652,174 \text{ Shares}} = \$0.529.$$

DEPS calculation:

1. The effect of share options under treasury share method is as follows:

$$\text{A. Before right exercise: number of bonus shares as a result of lower exercise price than (assumed) average F.V} = 20\text{m shares} \text{ Minus } \frac{\text{Hypothetical proceeds from presumed exercises} \rightarrow (\text{Strike Price } \$1.50 \times 20,000,000 \text{ Shares})}{\text{Average Share Price } \$1.80} = 3,333,333\text{m shares}.$$

These shares are assumed to be issued for no consideration (free issued).

$$\text{Number of bonus shares added to DEPS before options are exercised} = 3,333,333\text{m shares} \times \frac{3}{12} = 833,333 \text{ shares}.$$

$$\text{B. After right exercise: W. A number of ordinary shares will increase by } 20\text{m Shares} \times \frac{9 \text{ Months}}{12 \text{ Months}} = 15\text{m shares}.$$

Thus; the adjusted denominator of DEPS = $60\text{m shares} + 833,333 \text{ share} + 15\text{m shares} = 75,833,333$ shares.

$$\text{Adjustment difference} = 75,833,333 \text{ shares} - 75,652,174 \text{ shares} = 181,159 \text{ shares}.$$

B. After **right exercise**; W. A number of **ordinary shares** will increase by $20\text{m Shares} \times \frac{9\text{ Months}}{12\text{ Months}} = 15\text{m shares}$.

Thus; the adjusted **denominator** of **DEPS** = $60\text{m shares} + 833,333\text{ share} + 15\text{m shares} = 75,833,333\text{ shares}$.

Adjustment difference = $75,833,333\text{ shares} - 75,652,174\text{ shares} = 181,159\text{ shares}$.

Note: the 652,174 **shares** at the **denominator** of **BEPS** are replaced at the **denominator** of **DEPS** by 833,333 **shares** to avoid double **dilution**.

2. Adjustment for **convertible loan notes**:

Numerator effect = $\$23\text{m} \times 8\% \times 80\% = \$1,472,000$.

Denominator effect = 20m **convertible loan notes** are **convertible** to 20m **ordinary shares**.

Description	Numerator \$	Denominator (shares)	EPS	Effect
BEPS	\$40,000,000	75,652,174	\$0.529	
Rights issue (1)	0	181,159		
Total	40,000,000	75,833,333	\$0.527	Dilutive
Convertible loan notes (2)	1,472,000	20,000,000		
DEPS	41,472,000	95,833,333	\$0.433	Dilutive

3/3. Other relevant points

1. Inconsistency of **accounting policies** among entities *results in* a lack of **comparability** of **EPS** figures.
2. **BEPS and DEPS** of all periods **presented** should be **retrospectively** adjusted for the effects of **material errors** and changes in **accounting policies** as per IAS # 8 *but not* adjusted for changes in assumptions used in **EPS calculations**.
3. Actual **conversions** of **convertible instruments** into **ordinary shares** during the current year have **no retrospective** effects on **comparative** figures.
4. Share consolidations occurred during the current year *such as* **bonus issue**, **share split**, **share dividends** or **reverse share split** have **retrospective** effect on comparative figures of **BEPS and DEPS** for all periods **presented**.
5. *If* **share consolidations** occurred *after* the reporting date *but* before the F/S^s are authorised for issue; the **calculations** of **BEPS and DEPS** for the current year *and* those of prior periods should be based on the **new** number of shares *as long as* these events **do not** result in change in the entity's resources that yielded the current year **profit**.
6. **Material** changes in the number of **ordinary shares** or **potential ordinary shares** outstanding occurred **after** the end of the reporting period *but* before issuance of the F/S^s that **results in** change in the entity's resources are only disclosed. Examples are: repurchase of **ordinary shares**, issuing or **exercising** of **share warrants** or **share options** and **rights**, issuance of **shares** for cash or achievement of conditions that would result in issuance of **contingently issuable shares** and **conversion** or **exercise** of **potential ordinary shares**... etc.).

Example: Alba a public entity disclosed in its F/S^s that a proposal is to be made at the annual General Meeting to increase its share capital by means of a **rights issue**.

4/1. Presentation and Disclosure

1. **BEPS and DEPS** for profit from continuing operations and net profit are presented with equal prominence on the **face** of the statement of P/L for each class of ordinary shares;
2. **BEPS and DEPS** for **discontinuing operations** must be disclosed in either the face or in the notes to the F/S⁵;
3. Amounts used as the **numerator** in calculating **BEPS and DEPS** along with a reconciliation of those amounts to P/L for the period;
4. Disclosure of the W.A number of **ordinary shares** used as the **denominator** in calculating **BEPS and DEPS** along with a reconciliation of these **denominators** to each other;
5. Disclosure of instruments that could potentially dilute **BEPS** in the future *but* were not included in the calculation of **DEPS** because they were **anti-dilutive** for the period (s) **presented** such as **contingently issuable shares**.
6. Additional numerical disclosure requirements regarding **EPS** for entities that report **discontinued operations** are as follows:
 - A. Disclose **BEPS and DEPS** for net profit and for profits from continuing operations, on the face of P/L;
 - B. **BEPS and DEPS** for **discontinuing operations** must be disclosed *but* this can be in either on the face or in the notes to the F/S⁵.

5/1. Alternative EPS figures

The entity may present **alternative EPS** figures *if it wishes such as EPS based on operating activities rather than EPS based on continuing activities*. However IAS # 33 lays out certain rules *where this takes place* as follows:

1. The **W**. A number of **shares** as **calculated** under IAS # 33 **must** be used;
2. Reconciliation **must** be given *if necessary* between the component of **profit** used in the alternative **EPS** *and* the line item for **profit** reported in the statement of P/L;
3. **BEPS** *and* **DEPS** **must** be shown with equal prominence.

6/1. EPS as a performance measure

EPS figure is used to compute (P/E) ratio which is a major stock market indicator of **performance** and the yardstick for investment decisions in the entity's **share**. Rightly or wrongly the stock market places great emphasis on the **EPS** figure which has a significant effect on the entity's **share** price through P/E ratio. *Although* IAS #33 sets out a standard method of **calculating** EPS which enhances the **comparability** of the figure *but* there are a number of reasons why **EPS** should **not** be used to determine the value of the entity's share as follows:

1. **Numerator problems**; reported **earnings** can be affected by a number of factors *such as* choice of **accounting policy**, asset valuation, taxation issues *and* **managed earnings** that inappropriately purport to present favorable **EPS**;
2. *When* remuneration packages are linked to **EPS** growth; management may be under pressure to unjustifiably improve **EPS** by distorting results of performance;
3. **EPS** does not take account of inflation *thus*; apparent growth in **earnings** may not be true growth;
4. **EPS** does not provide **predictive value**; in theory **DEPS** serves as a warning signal to equity shareholders that the return on their investment may fall in future periods. *Although* **DEPS** as currently required by IAS # 33 is **not intended to be forward-looking** *but* is an additional **past performance measure**. **DEPS** is based on **current earnings** not forecasted **earnings** (*but* it could be seen from some perspectives as a **forward-looking**) yet **DEPS** is only of limited use as a prediction of future **EPS**;
5. High **EPS** *and* growth in **EPS** may be achieved at the expense of increased dependence on gearing *and* financial risk.
6. **EPS** is a **measure of profitability**. **Profitability** is only one aspect of performance. The concentration on **EPS** *and* 'the bottom line' arguably detracts from other important aspects of an entity's affairs *such as* cash flow *and* stewardship of assets *and* risk profile.

Nevertheless financial markets are sensitive to EPS.

Example: Explain the value that disclosure of **BEPS** *and* **DEPS** figures to F/S^s *and* discuss the limitations of the **EPS** figures bearing in mind the characteristics of **useful financial information**.

Remember:

Qualitative characteristics of useful financial information	
Subject to pervasive constraint (not a qualitative characteristic) → Cost/ benefit	
Fundamental qualitative characteristics	Enhancing qualitative characteristics
Distinguish useful financial information from information that is not useful or that is misleading	Distinguish more useful information from less useful information
1. Relevance; Predictive value, confirmatory value or both <i>and</i> material	1. Comparability; Consistency aids comparability
2. Faithful representation (reliability); Completeness, neutrality <i>and</i> free from error	2. Verifiability;
	3. Timeliness;
	4. Understandability; Classifying, characterising <i>and</i> presenting Information clearly <i>and</i> concisely.

Answer: The **BEPS** is computed by dividing the weighted average number of **ordinary shares** in issue during a period into the **profit** for the period that is attributable to the **ordinary shareholders**. It could be said that EPS is a superior **performance measure** than **profit** alone as it allows for the impact of changes in capital structure involving the issue or repurchase of **ordinary shares** which absolute **profit** figure alone does not. The IASB's 'Framework for the **Preparation and Presentation** of Financial Statements' states that; **useful financial information** should be **relevant** to the decision making needs of users. **Relevant** financial information influences the economic needs of users by helping them **evaluate** past, present or future events. As financial reporting develops, it is becoming increasingly apparent that **not all** aspects of financial performance can be captured by a **single figure** such as the **profit** for the period. This has led to many IFRS **Accounting Standards** that require **disclosure** of a number of different components of financial performance. However because the **EPS** statistic is computed on the **overall profit** for the period it does **not** inform the user about the **components** of financial performance that have led to the overall **profit**. In that sense its '**value relevance**' could be said to be **questionable**.

The **DEPS** figure acts as a **warning signal** to existing **ordinary shareholders**. The **warning** is that; the **EPS** figure could face future **dilution** due to events that are **not within the entity's control** and which are nothing to do with financial performance (share's F.V). The **potential** future **dilution** arises from the possibility of **potential ordinary shares** actually becoming **ordinary shares** at the election of the holders. IAS # 33 '**Earnings per Share**' requires that; the **shareholders** are **warned** about this possibility by the **disclosure** of what the **EPS** figure for the current period would have been *if* all the **potential ordinary shares** had been **converted** into **ordinary shares** on the first day of the accounting period or their date of issue (*if later*). This **disclosure** could be said to be of **meaningful relevance** in that the **potential ordinary shares** were **not** in fact in issue during the reporting period and so the disclosure is of a purely **hypothetical conversion**. There is really no solution to this dilemma short of requiring **disclosure** based on estimated future **earnings** and the lack of reliability of such a number makes this requirement impracticable.

1/1. Examinable syllabus guide for

December 2025 to June 2026 according to ACCA

Financial instruments

- Explain the definition of a financial instrument.

After studying our material and solving related questions, please refer back to the points above to make sure you fully cover it well.

1/2. Overview

The global **financial crisis** of 2008 *and* 2009 underscored how closely the financial markets *and* the wider economy are interconnected and how the **lack of transparency** can threaten the financial system as a whole *therefore* entities, especially financial institutions need to provide more useful information to better communicate the **risks** flowing from transactions relating to **financial instruments**. The IASB realised that there was an urgent need to improve the **accounting for financial instruments** through issuance of a high quality set of **accounting standards** on **financial instruments** since the current **accounting rules** permitted numerous **options** *and* added unnecessary complexity. Especially in the light of;

- A. The significant international **growth** in the use of **financial instruments** over recent years.
- B. The recent **high-profile disasters** involving **derivatives** that have raised questions about **accounting** *and* disclosure practices.
- C. The national standard-setters involvement in response to the global financial crisis.

The IASB response

There are three reporting standards that deal with **financial instruments**;

1. IAS # 32 'Financial instruments-Presentation' effective in 1996 that deals with:

- A. The classification of financial instruments between **liabilities** *and* **equity**;
- B. Presentation of certain **compound instruments**;
- C. The presentation of interest, dividends *and* **G/L** related to **financial instruments**;
- D. The circumstances in which **financial assets** *and* **financial liabilities** can be offset; *and*
- E. The **accounting treatment** of treasury shares.

Scope of IAS # 32

IAS # 32 applies to the **presentation** of **all** types of financial instruments *as* **financial liabilities** *or* **equity** **except**.

- A. Interests in **subsidiaries**, **associates** *and* **J.V's** covered under IAS # 27, IAS # 28 *and* IFRS Accounting Standard # 11 respectively;
- B. Insurance **contracts** (IFRS Accounting Standard # 17);
- C. Contracts for contingent consideration in a business combination (IFRS Accounting Standard # 3);
- D. **Financial instruments**, contracts *and* obligations under share- based payment transactions (IFRS Accounting Standard#2);
- E. Pensions *and* other post-retirement benefits (IAS #19); *and*
- F. Contracts that require a payment based on **physical variables** *such as* climatic *or* geological variables.

Note: IAS # 32 includes presentation of entity's issued **equity instruments** that are classified as **equity** in the SFP.

Ex: Which issues are dealt with by IAS # 32?

Answer: Classification *and* presentation of financial instruments as **financial liabilities** *or* **equity**.

2. IFRS Accounting Standard # 7 'Financial instrument-Disclosures' effective from 2007. (See later)

3. IFRS Accounting Standard # 9 'Financial Instruments' is a **principles-based** standard effective from 1, Jan, 2018.

IFRS Accounting Standard # 9 replaced IAS # 39 'Financial instruments-Recognition and measurement' due to its complexity and the urgent need (after the financial crisis) to enhance investors confidence in the financial markets.

IFRS Accounting Standard # 9 covers the following issues:

A. Recognition and derecognition of financial assets and financial liabilities;

B. Measurement of financial instruments;

C. Impairment of financial assets; and

D. General hedge accounting.

Note: Classifications for some financial assets that were previously used under IAS # 39 such as 'available for sale' or 'held to maturity' are now **not used** under IFRS Accounting Standard # 9.

Scope of IFRS Accounting Standard # 9

IFRS Accounting Standard # 9 applies to **all** entities and **all** types of financial instruments **except**:

A. Entity's issued equity instruments that are classified in equity (e.g. issued ordinary shares, preference shares (P/S), or share options and share warrants);

B. Investments in subsidiaries, associates and J.V's;

C. Insurance contracts and financial guarantee contracts;

D. Contracts for contingent consideration in a business combination (Covered in IFRS Accounting Standard # 3);

E. Financial instruments, contracts and obligations under share based payment transactions (Covered in IFRS Accounting Standard # 2);

F. Employee benefit plans (Covered in IAS # 19);

G. Lease receivable and lease payable (Covered in IFRS Accounting Standard # 16);

H. Loan commitments that can't be settled net in cash or another financial instrument;

I. Rights to reimbursement under IAS # 37; and

J. Rights and obligations within the scope of IFRS Accounting Standard # 15 'Revenue from contracts with customers'.

Illustrative example: The scope of IFRS Accounting Standard # 9 includes all of the following items **except**:

A. Financial instruments that meet the definition of a financial asset.

B. Financial instruments that meet the definition of a financial liability.

C. Financial instruments issued by the entity that meet the definition of an equity instrument.

D. Contracts to buy or sell non-financial items that can be settled net.

Answer (C) is correct:

2/1. Definitions

1. Financial instrument is any **contract** that gives rise to both a **financial asset** of one entity *and* a **financial liability or equity instrument** of another entity.

2. A **contract** need not be in writing *but* is an **unavoidable** agreement that has 'clear economic consequences' that is usually **enforceable** in law.

3. Financial instruments *include;*

A. Primary instruments *such as* receivables, payables *and* equity securities.

B. Derivative instruments *such as* financial options (put options *and* call options), forward *and* future contracts, swaps (interest rate swaps *and* currency swaps) *whether* recognised *or* **unrecognised** in the F/S^s.

4. Financial instruments under the scope of IAS # 32 are **financial assets**, **financial liabilities** *and* equity instruments as follows:

1. Financial assets	2. Financial liabilities
1. Explicit or implicit contractual right to receive cash or other financial asset. Examples: ♦Trade receivable; ♦Loan receivable; ♦Note receivable; ♦Investment in debt security issued by other entity; ♦Investment in preference shares of another entity ♦Investment in ordinary shares of another entity. Note: Investments in equity of Sub^s, associate or J.V^s where the investor has control, significant influence or joint control over the investee while these equity interests are financial assets but are scoped out of IAS # 32 and IFRS Accounting Standard # 9 and accounted for under equity method. ♦Finance lease receivable (net investment in finance lease); and ♦ Cash deposited in bank such as demand deposits, time deposits and CD^s are all financial assets of the depositor and financial liabilities of the bank because the bank has a contractual obligation to repay the cash to the entity. Note: Gold bullion deposited in a bank is not a financial instrument. It is a commodity so it is outside the scope of IAS # 32. <u>Items that do not give rise to contractual right to receive cash or other financial asset and thus are not financial assets.</u> <u>(Outside the scope of IAS # 32)</u> A. Prepaid expenses and down payments for goods or services; it represents the entity's future economic benefit to receive the corresponding goods/services but it does not give the entity a contractual right to receive cash or other financial asset.	1. Explicit or implicit contractual obligation to pay cash or other financial asset. Examples: ♦Trade payable; ♦Loan payable; ♦Note payable; ♦Issued bonds payable; ♦Issued preference share as it pays a predetermined preferred dividends; ♦Redeemable preference share; ♦Putable shares where the shareholder can redeem the share back to the issuer ; and ♦Lease payable while the leased asset itself is not a financial asset. <u>Items that do not give rise to contractual obligation to pay cash or other financial asset and thus are not financial liabilities.</u> <u>(Outside the scope of IAS # 32)</u> A. Provisions; as they do not arise as a result of contractual obligations such as provision for estimated litigation losses. B. Constructive obligations do not arise from contractual obligation but rather they derive from an entity's established pattern of past practice or published policies that has created a valid expectation on the part of other parties that the entity will discharge a specific responsibility. C. Warranty obligation that obligates the entity to repair a defective item but it is not a contractual obligation to pay cash or another financial asset. D. Deferred revenue (contract liability); it obligates the entity to deliver the corresponding goods or render the corresponding services but it is not a contractual obligation to pay cash or another financial asset.

B. Physical assets; *such as* inventories, PPE and investment properties.

Note: the entity's control of the physical asset creates an opportunity to generate a cash inflow *or* other assets *but* it does **not** give rise to a **contractual** right to receive cash *or* other **financial asset**.

C. Intangible assets

D. Assets those are **not contractual** in nature *such as* income tax receivable *and* deferred tax assets (DTA) because such assets are entitled by statutory tax code.

Ex: What items are **not financial instruments** according to IAS # 32?

Answer: Physical assets, intangible assets, prepaid expenses, non-contractual **assets or liabilities**, contractual rights **not** involving transfer of cash *or* **financial asset** *such as* prepaid expenses.

Q: What is the critical feature used to identify a **financial asset**?

Answer: The **contractual** right to **receive** cash *or* other **financial asset** from another party.

.....

2. Contractual *contingent* right to receive cash or other financial asset from other entity that arise from a past transaction *or* event *regardless of whether* recognised in F/S⁵ *or* not.

Examples:

♦Rights on **purchased call or put options** on **financial security or currency**;

♦Rights on **futures and forward contracts** related to **financial security or currency**;

But rights on **purchased call or put options** on **commodities** *and* rights on **commodity futures or forward contracts** that involve receiving *or* delivering the underlying commodity are **executory contracts** as they do **not** involve receiving cash *or* other **financial asset**.

E. An **issued ordinary share** *although* it is a **financial instrument** that falls within the scope of IAS # 32 *but* it is **not a financial liability** because it does **not** give rise to **contractual obligation** to pay cash *or* other **financial asset**.

F. **Liabilities** those are **not contractual** in nature *such as* income tax payable *and* deferred tax liability (DTL) because these **obligations** are imposed by tax code.

Q: What is the critical feature used to identify a **financial liability**?

Answer: The **contractual obligation** to **pay** cash *or* other **financial asset** to another party.

.....

2. Contractual *contingent* obligation to pay cash or another financial asset to other entity that arises from a past transaction *or* event *regardless of whether* recognised in F/S⁵ *or* not.

Examples:

♦Assumption of a guarantee.

♦Obligations on **written call or put options** on **financial security or currency**;

♦Obligations on **futures and forward contracts** related to **financial security or currency**;

But obligations on **written call or put options** on **commodities** *and* obligations on **commodity futures or forward contracts** that involve receiving *or* delivering the underlying **commodity** are **executory contracts** as they do **not** involve **paying** cash *or* other **financial asset**.

Expansion

Apart from items that meet the definition of financial instruments; IAS # 32, IFRS Accounting Standard # 9 and IFRS Accounting Standard # 7 are expanded to include some contracts that do not meet the definition of a financial instrument but have characteristics similar to derivative financial instruments such as options and future or forward contracts to purchase or sell non-financial items like gold, oil, electricity or gas at a future date when and only when;

A. This derivative contract can be settled net in cash or some other financial instrument rather than by actual delivering or receiving of the underlying non-financial item; and

B. The contract is not initiated for the receipt or delivery of the non-financial item to meet the entity expected purchase, sale or usage requirements.

Example (1): On 1, Oct, 2018 Megan entered into a future contract to purchase 100 tons of cotton (non-financial asset) at a fixed price of \$100,000 on 1, Oct, 2019.

This contract would be within the scope of IFRS Accounting Standard # 9 if Megan can settle the contract net in cash and it does not expect to use the cotton in its business activities. Then; the futures contract is a financial instrument and is appropriately recognised and measured under IFRS Accounting Standard # 9.

Note: Under IFRS Accounting Standard # 9 a derivative contract is considered subject to potential net settlement if the non-financial item covered by the contract (received or delivered) is readily convertible to cash (i.e. the item has an active market).

But when the contract is entered into and held for the purpose of making or taking delivery of the underlying non-financial item to satisfy the entity's, expected purchase, sale or usage requirements, it is not accounted for as a financial instrument under IFRS Accounting Standard # 9 but rather it is an executory contract.

Example (2): If Enjo Co. entered into a forward contract to purchase electricity in accordance with its expected usage requirements. That contract is not a financial instrument and would be outside the scope of IFRS Accounting Standard # 9. It would be accounted for as an executory contract that will not be recognised until one of the parties has performed under the contract.

Remember: Per IAS # 37 no provision should be made for executory contracts unless the contract is onerous.

Illustrative example (1): Are there any circumstances when a contract that is not a financial instrument would be accounted for as a financial instrument under IFRS Accounting Standard # 9?

Answer: Yes; A contract for the future purchase or delivery of a commodity or other non-financial item (e.g., gold, electricity or gas) generally is accounted for as a financial instrument if;

A. The contract can be settled net in cash or some other financial instrument rather than by actual delivering or receiving of the underlying non-financial item; and

B. The contract is not initiated for the receipt or delivery of the non-financial item to meet an entity's expected purchase, sale or usage requirements.

Illustrative example (2): Jolly entered into a contract to purchase 5m pounds of copper for a fixed price at a future date. Copper is actively traded on the metals exchange and is readily convertible to cash.

Required: Discuss *whether* this contract falls within the scope of IFRS Accounting Standard # 9.

Answer: This contract potentially is within the scope of IFRS Accounting Standard # 9 because it is a contract to buy a **non-financial item** (copper) **and** is subject to potential net settlement.

Under IFRS Accounting Standard # 9; a contract is considered to be subject to potential **net settlement** *if* the **non-financial item** is readily **convertible** to cash. This condition is met because Copper is traded on an active market. *Therefore* the contract is within the scope of IFRS Accounting Standard # 9 *unless* it is a 'normal purchase or sale'. There is not sufficient information to determine *whether* it is a 'normal purchase'.

♦ The contract would be considered a normal purchase *if* the entity intends to take delivery of the **non-financial item** **and** has no history of:

A. Settling net;

B. Entering into offsetting contracts; *or*

C. Selling shortly after delivery in order to generate a profit from short-term fluctuations in price *or* dealer's margin.

3. Exchange of financial instrument with another entity under potentially **favorable** conditions to the entity.

Examples:

♦ Exercising of **purchased call or put option** because it is **in the money** (worth exercising);

♦ Converting a **convertible bond or** preference share into **ordinary share**.

.....

4. A contract that will *or* may be settled in the entity's **equity instruments** under potentially **favorable** conditions *such as* exercising a **purchased call/Put option** on the entity's own **shares**.

3. Exchange of financial instrument with another entity under potentially **unfavorable** conditions to the entity.

Example:

♦ Acquiring *or* delivering a **financial instrument** as a result of a **written call/ put options**.

.....

4. A contract that will *or* may be settled in the entity's **equity instruments** under potentially **unfavorable** conditions *such as* **sale of call/Put option** that creates **obligation** on the entity to receive *or* deliver a **variable** number of its own **equity instruments** worth a **fixed** amount of cash.

Revision example (1): Garsonera is evaluating *whether* each of these items is a **financial instrument** *and whether* it should be **accounted for** under IAS # 32:

1. Cash deposited in banks;
2. Gold bullion deposited in banks;
3. Trade receivables;
4. Investments in **debt instruments**;
5. Investments in **equity instruments** *where* the investor does **not** have significant influence over the investee;
6. Investments in **equity instruments** *where* the investor has **significant influence** over the investee;
7. Prepaid expenses;
8. Finance lease receivables *or* payables;
9. Deferred revenue;
10. Statutory tax liabilities;
11. Provision for estimated litigation **losses**;
12. An electricity purchase contract that can be **net settled** in cash;
13. Issued **debt instruments**;
14. Issued **equity instruments**;

Required: Help Garsonera to determine (1) which of the previous items meets the definition of a **financial instrument** *and* (2) which of the previous items falls within the scope of IAS # 32.

Answer:

1. Yes; cash deposited in a bank is a **financial instrument**, it is a **financial asset** of the entity *and* a **financial liability** of the bank because the bank has a **contractual obligation** to repay the cash to the entity. It falls **within** the scope of IAS # 32.
2. No; gold is not a **financial instrument**; it is a **commodity** *so* it is **outside** the scope of IAS # 32.
3. Yes; a trade receivable is a **financial instrument** because the holder has a **contractual right** to receive cash. Trade receivable **falls within** the scope of IAS # 32.
4. Yes; an investment in a **debt instrument** is a **financial instrument** because the investor has a **contractual right** to receive cash. *Thus*; it falls **within** the scope of IAS # 32.
5. Yes; an investment in **equity instrument** is a **financial asset** **that falls within** the scope of IAS # 32.
6. The investment in **equity instrument** is **financial asset** *but* is **scoped out** of IAS # 32 because the investor has significant influence over the investee.
7. No; prepaid expense are **not financial instruments** because they will not result in the delivery *or* exchange of cash *or* other **financial instruments**. *Thus*; it is **outside** the scope of IAS # 32.
8. Yes; finance lease receivable *or* payable is a **financial instrument** *and* is **within** the scope of IAS # 32.

9. No; deferred revenue does not meet the definition of a **financial instrument** it is **outside** the scope of IAS # 32.

10. No; tax assets *and* liabilities do not meet the definition of a **financial instrument** because they do not arise from contractual rights *or obligations* *but* from statutory requirements. They are **outside** the scope of IAS # 32.

11. No; provisions do not meet the definition of **financial instrument** because they do not arise as a result of contractual **obligations**. They are **outside** the scope of IAS # 32.

12. *Although* electricity purchase contract does not meet the definition of **financial instrument**; it is included in the scope of IAS # 32 *if* it can be **settled net** in cash *unless* the contract will be settled by delivery to meet the entity's normal purchase, sale *or* usage requirements.

13. Yes; an issued **debt** instrument meets the definition of a **financial liability**. It is **within** the scope of IAS # 32.

14. Yes; an issued **equity** instrument is a **financial instrument** that falls within the scope of IAS # 32.

Revision example (2): During 2019 Karma has issued a number of **financial instruments**. Karma is evaluating how each of these **instruments** should be **presented** under IAS # 32.

1. A perpetual **bond** (i.e., a **bond** that does not have a maturity date) that pays 5% interest each year.

2. A mandatorily **redeemable** share with a fixed **redemption** amount (i.e., a share that will be **redeemed** by the entity at a future date).

3. A share that is **redeemable** at the **option** of the holder for a fixed amount of cash.

4. A sold (*written*) **call option** that allows the holder to purchase a **fixed number** of **ordinary shares** from Karma for a **fixed amount** of cash.

Required: For each of the above **instruments** discuss *whether* it should be classified as a **financial liability** *and if so, why*.

Answer:

1. An issued perpetual **bond** that pays 5% interest each year should be classified as a **financial liability** because the instrument contains an **obligation** to pay cash (interest); it meets the definition of a **financial liability**.

2. An issued mandatorily **redeemable** share with a fixed **redemption** amount should be classified as a **financial liability** because the instrument contains an **obligation** to pay a fixed amount of cash *or* other **financial assets** on **redemption** of the share; it meets the definition of a **financial liability**.

3. An issued share that is **redeemable** for a fixed amount of cash at the **option** of the holder should be classified as a **financial liability** because Karma can't avoid cash settlement should the holder demand **redemption**. The share meets the definition of a **financial liability**.

4. A sold (*written*) **call option** that allows the holder to purchase a **fixed number** of **ordinary shares** from Karma for a fixed amount of cash should be classified as **equity**. A contract that will *or* may be settled in the entity's **own equity** is classified as **equity** *if* it provides for the exchange of a **fixed number** of **own equity** instruments for a **fixed amount** of cash.

Illustrative example (3): Omega issued **redeemable** preference shares (P.S^s) with a coupon rate 8% that is **redeemable** 5 years later at **premium** of 10% (i.e. **redeemed** at an amount that exceeds the amount received by 10%).

Required: Identify *whether* the issued P.S^s are classified as **debt** *or* **equity**.

Answer: The issued P.S^s have **debt** characteristics as it require regular cash distributions *and* are **redeemable**. *Therefore* under IAS # 32 it is **initially classified** as **debt (financial liability)**.

3/1. Equity instrument (Issuer view)

Equity instrument is a **contract** that evidences a **residual interest** in the issuer's assets after deducting **all** of its **liabilities**.

Notes:

A. Although issued **equity instrument** is a **financial instrument** that falls under IAS # 32 'Financial instruments presentation' but it is **not measured and recognised** under IFRS Accounting Standard # 9 'Financial instruments'.

B. The key feature that distinguishes **equity instrument** from **debt instrument** is that; the **issuer** of an **equity instrument** is **not contractually or legally** required to pay cash or other **financial asset**. The issuer has the legal right to say NO.

Illustrative example: How should a **financial liability** is distinguished from an **equity instrument**?

Answer: The critical feature that distinguishes **liability** from **equity** is that; **financial liability** is an **obligation** to transfer economic benefit to other party. Therefore a **financial instrument** is a **financial liability** if there is a **contractual obligation** on the **issuer** either to deliver cash or another **financial asset** to the **financial instrument** holder or to exchange another **financial instrument** with the holder under potentially **unfavorable** conditions to the issuer such as to deliver **variable** number of the entity's own **equity instruments**.

Ex: Define a **financial asset**; a **financial liability** and **equity instrument** in accordance with IAS # 32 'Financial instruments- presentation'.

Answer: IAS # 32 defines a **financial instrument** as a contract that gives rise to a **financial asset** of one entity and a **financial liability** or **equity instrument** of another entity.

1. A **financial asset** is any asset that is:

- Cash.
- An **equity instrument** of another entity.
- A contractual right to receive cash or another **financial asset** from another entity.
- A contractual right to exchange **financial assets** or **financial liabilities** under conditions that are potentially favorable.

2. A **financial liability** is any contract that is:

- A contractual **obligation** to deliver cash or another **financial asset** to another entity.
- A contractual **obligation** to exchange **financial assets** or **financial liabilities** under conditions that are potentially unfavorable.

3. An **equity instrument** is any contract that evidences a **residual interest** in the assets of an entity after deducting all of its